

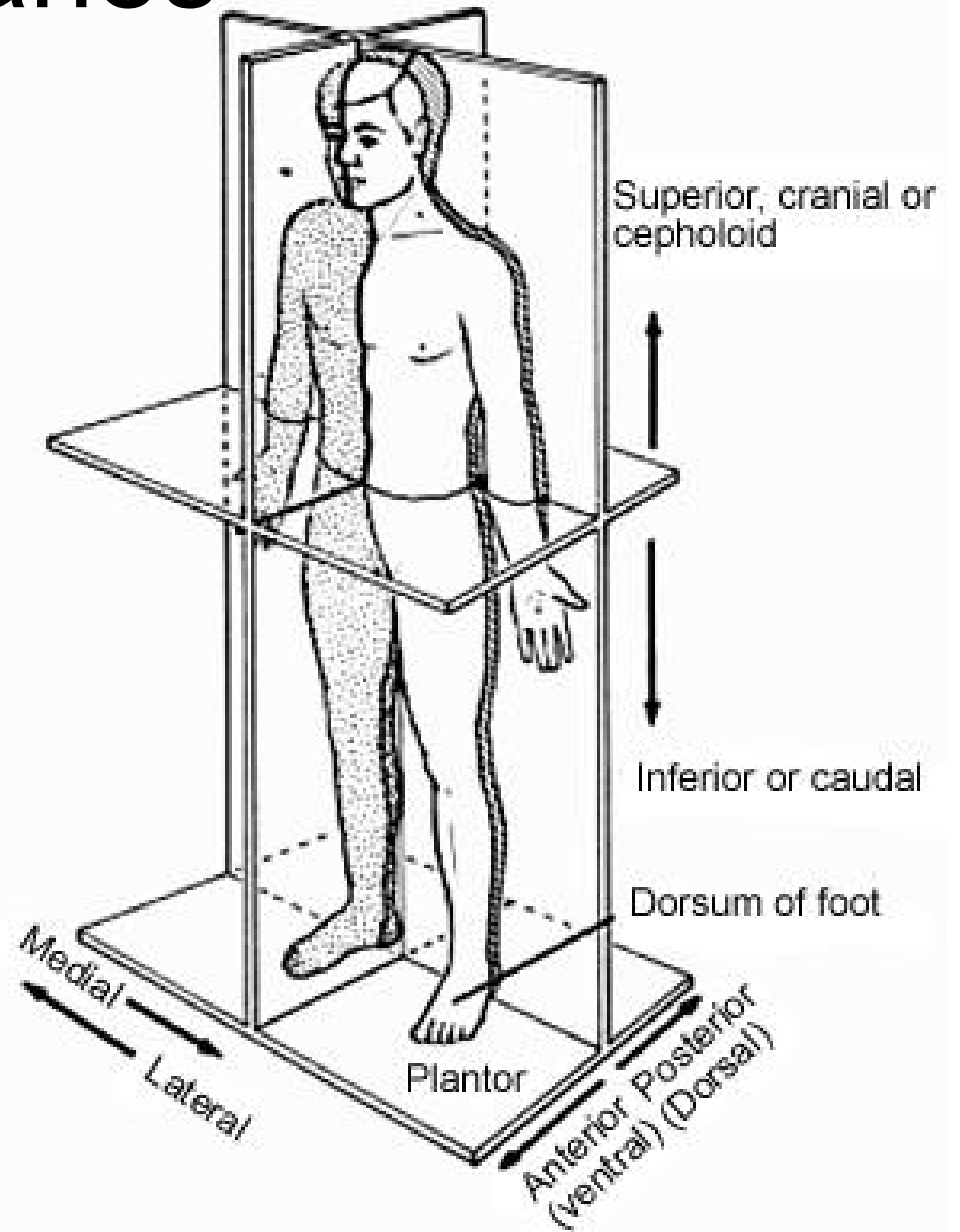
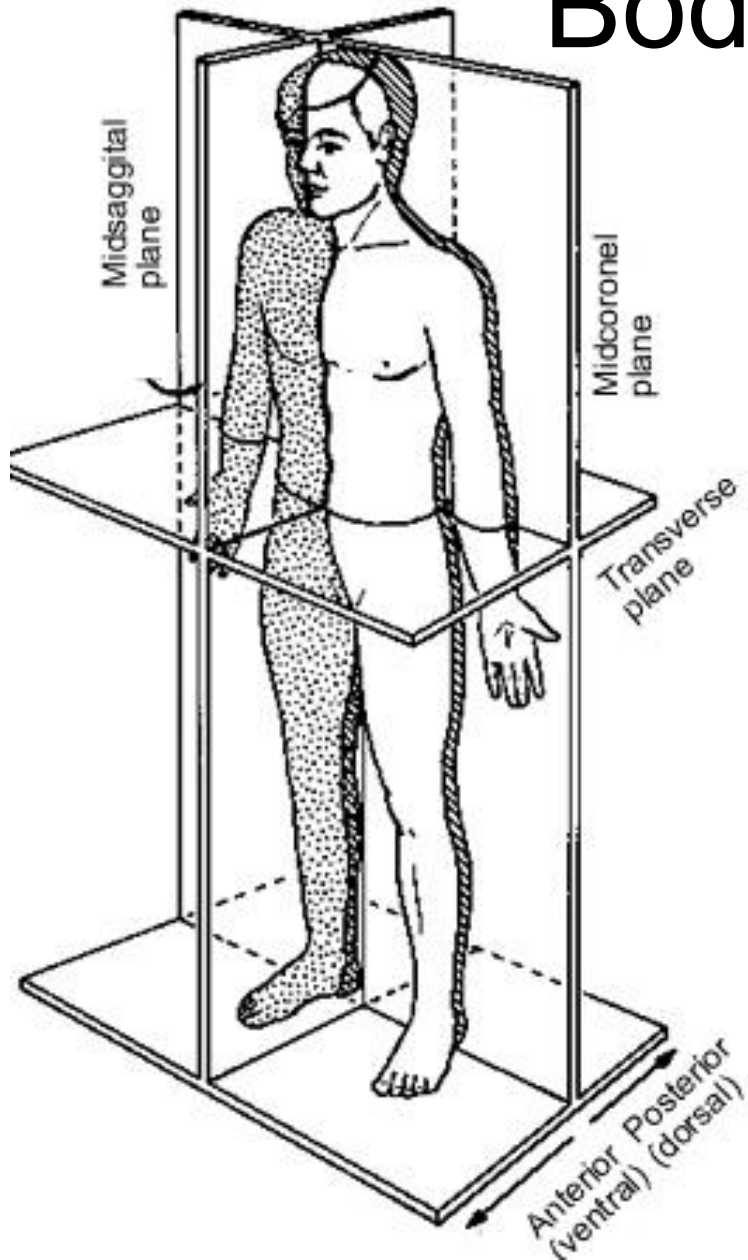
Lab #1

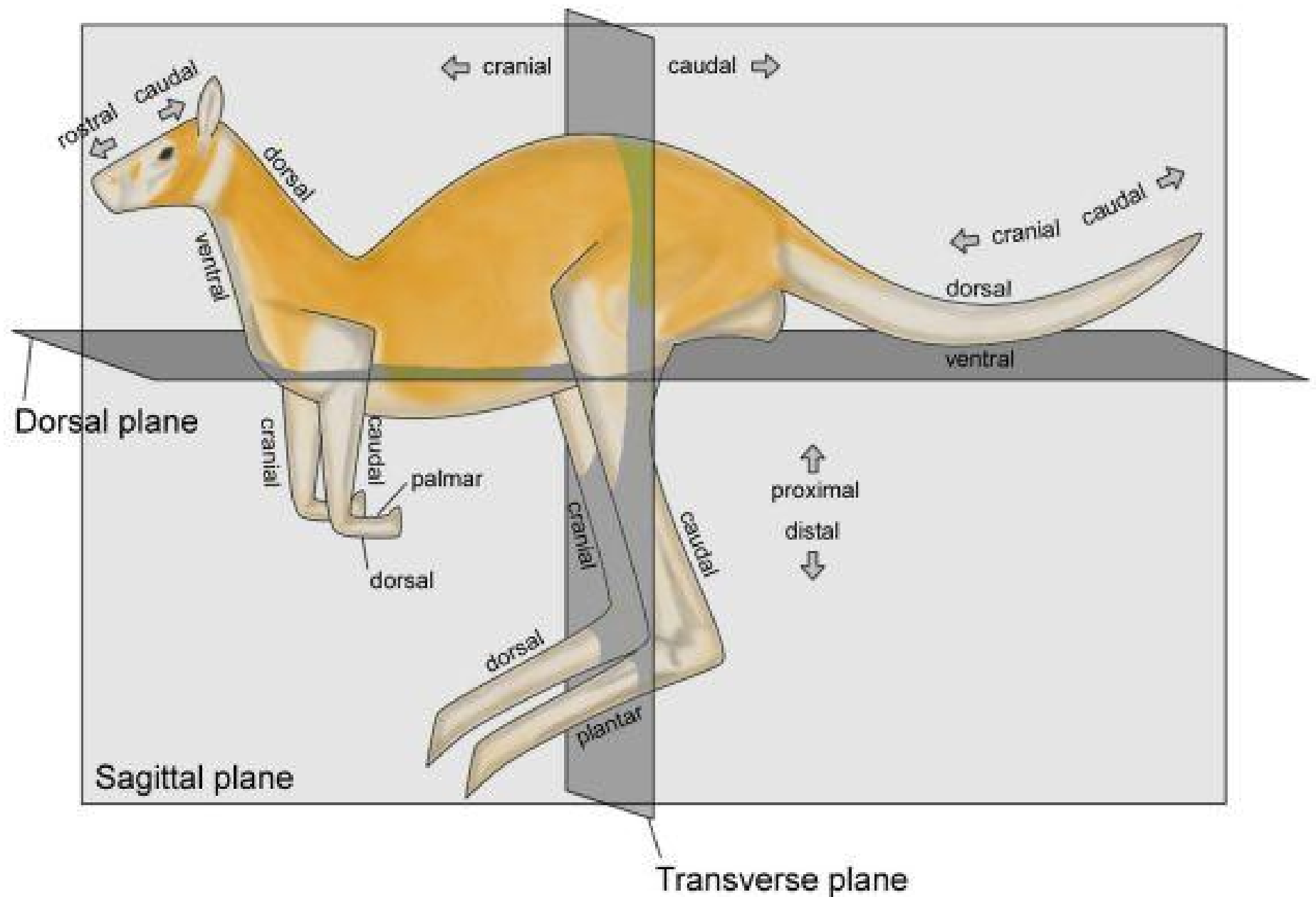
Lab Exercises

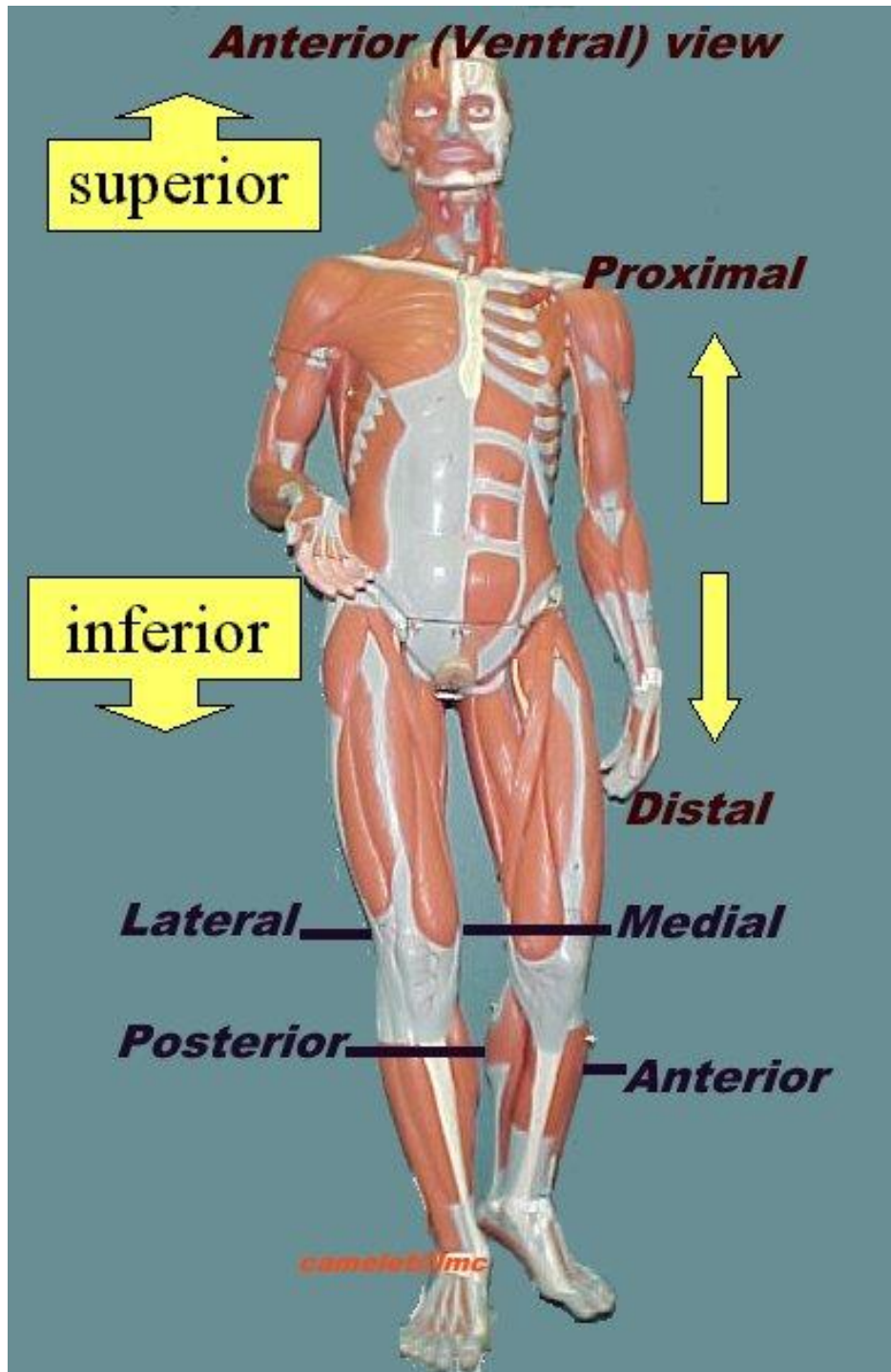
- Medical Terminology
 - Cavities of the Body
 - Regions of the Abdominal Cavity
 - Body Planes and Positions
- Using the Microscope- proper care and use
 - Parts
 - Viewing Objects
 - Silk fiber slides
 - Printed letter
 - Wet mount
 - Check cells
 - Onion cells
 - Plant cells

Anatomical Planes and Positions

Body Planes

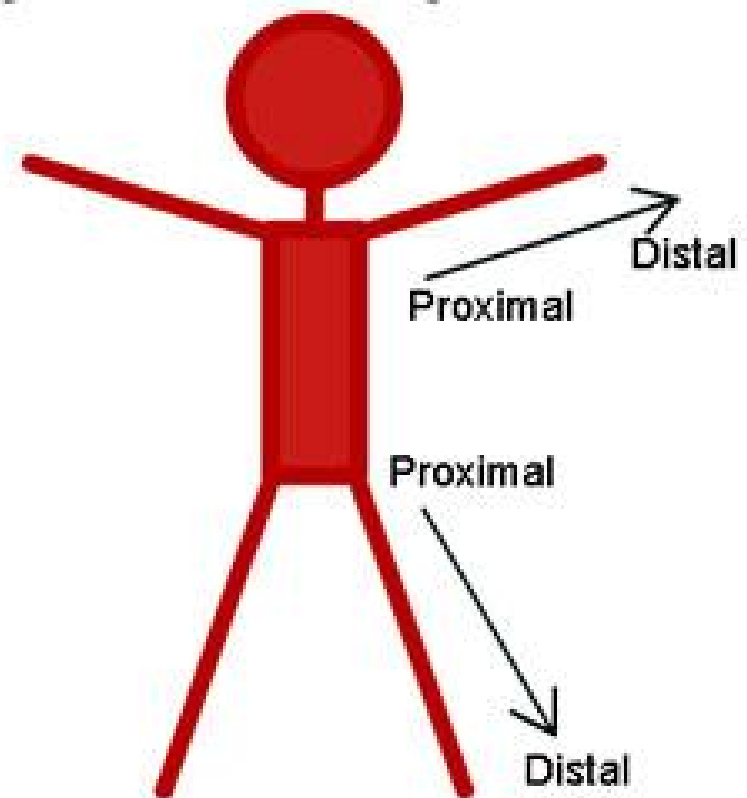






Anatomical Directions

Figure F-4: Meaning of Proximal



Proximal muscles are closer to the center of the body.

Directional Terms

Directional terms describe the positions of structures relative to other structures or locations in the body.

Superior or cranial

toward the head end of the body; upper (example, the hand is part of the superior extremity).

Inferior or caudal

away from the head; lower (example, the foot is part of the inferior extremity).

Anterior or ventral

front (example, the kneecap is located on the anterior side of the leg).

Posterior or dorsal

back (example, the shoulder blades are located on the posterior side of the body).

Medial

toward the midline of the body (example, the middle toe is located at the medial side of the foot).

Lateral

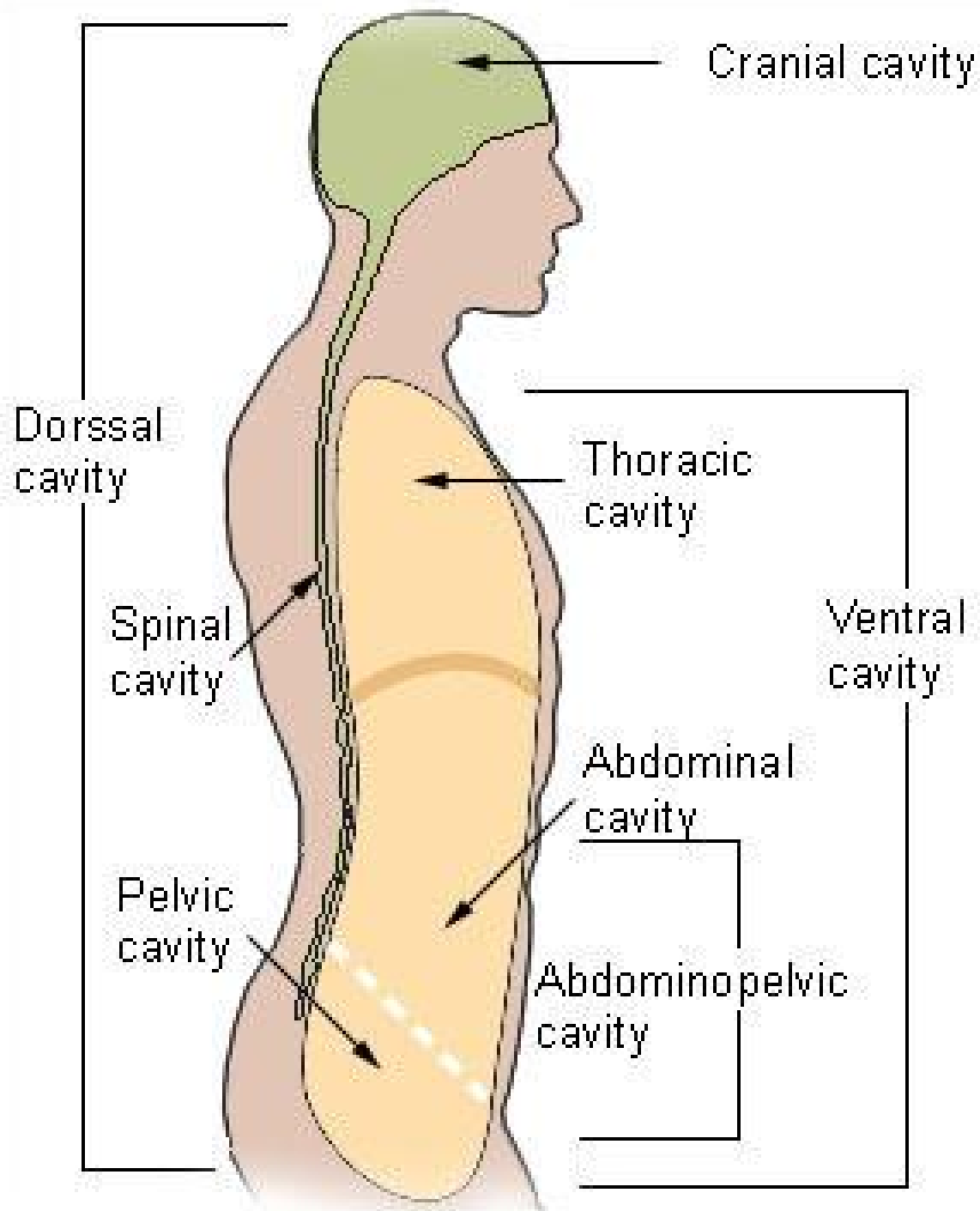
away from the midline of the body (example, the little toe is located at the lateral side of the foot).

Proximal

toward or nearest the trunk or the point of origin of a part (example, the proximal end of the femur joins with the pelvic bone).

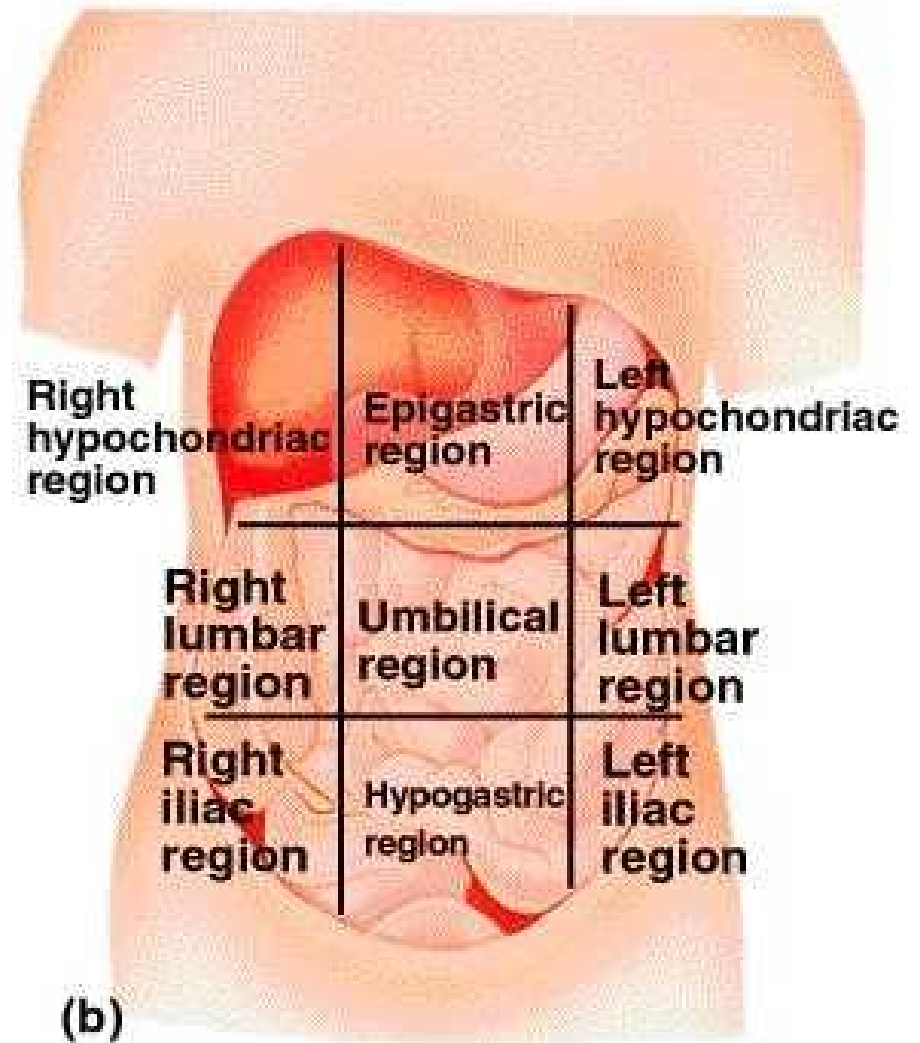
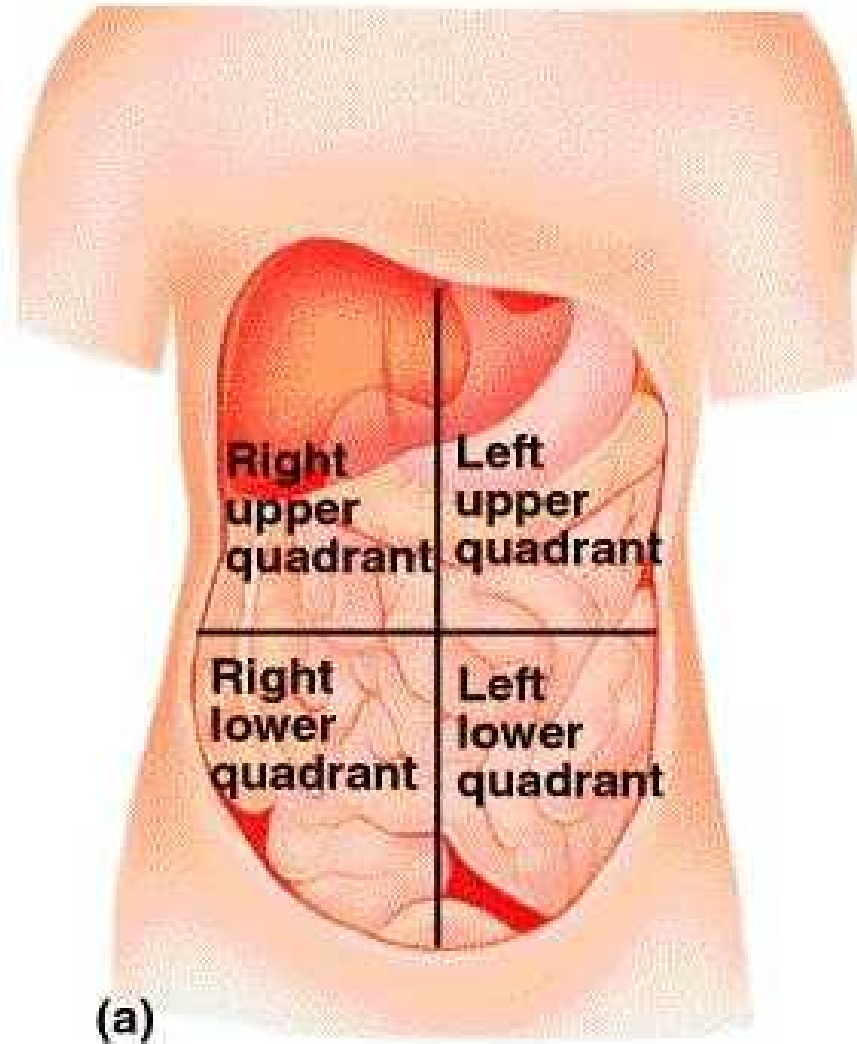
Distal

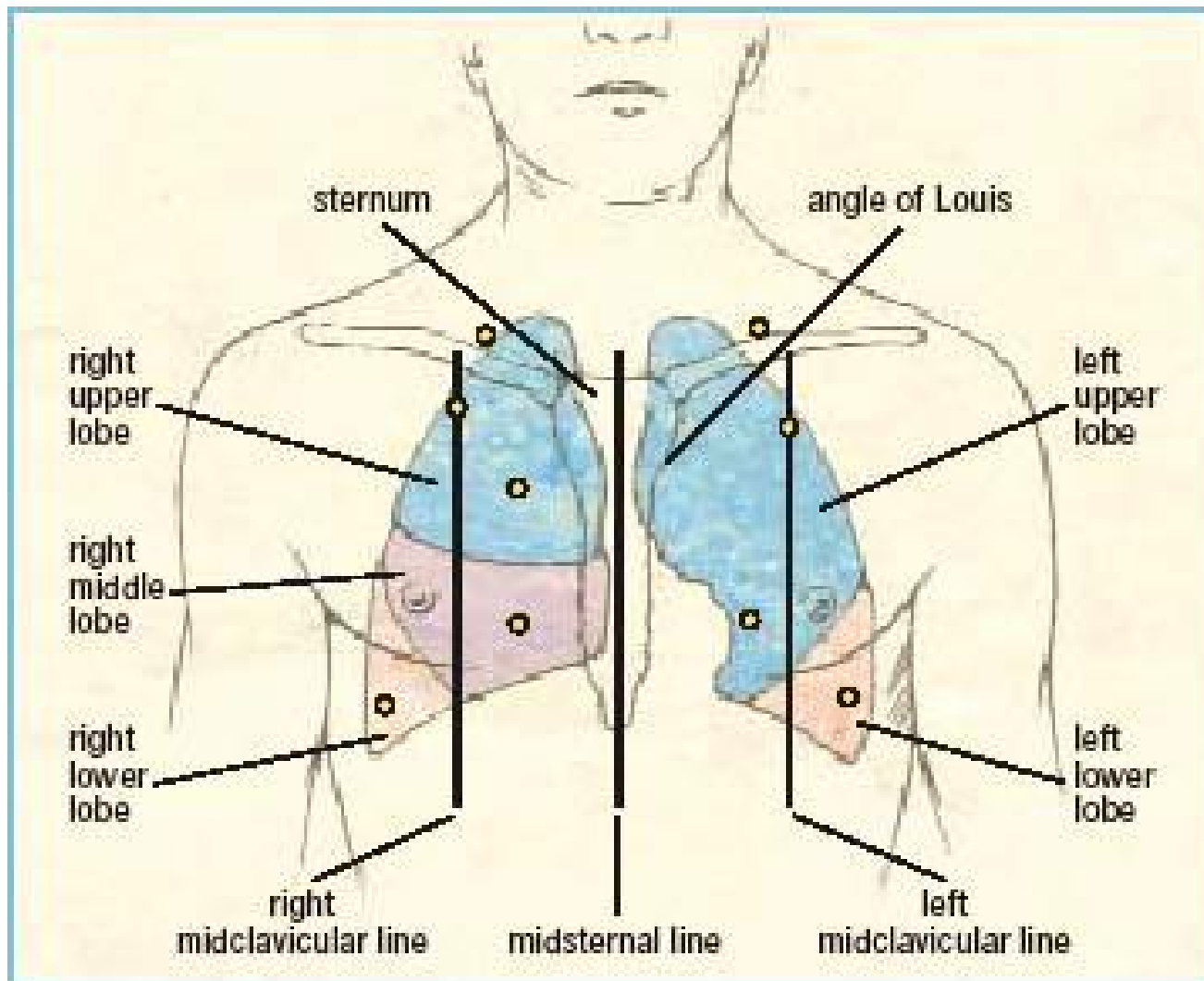
away from or farthest from the trunk or the point or origin of a part (example, the hand is located at the distal end of the forearm).

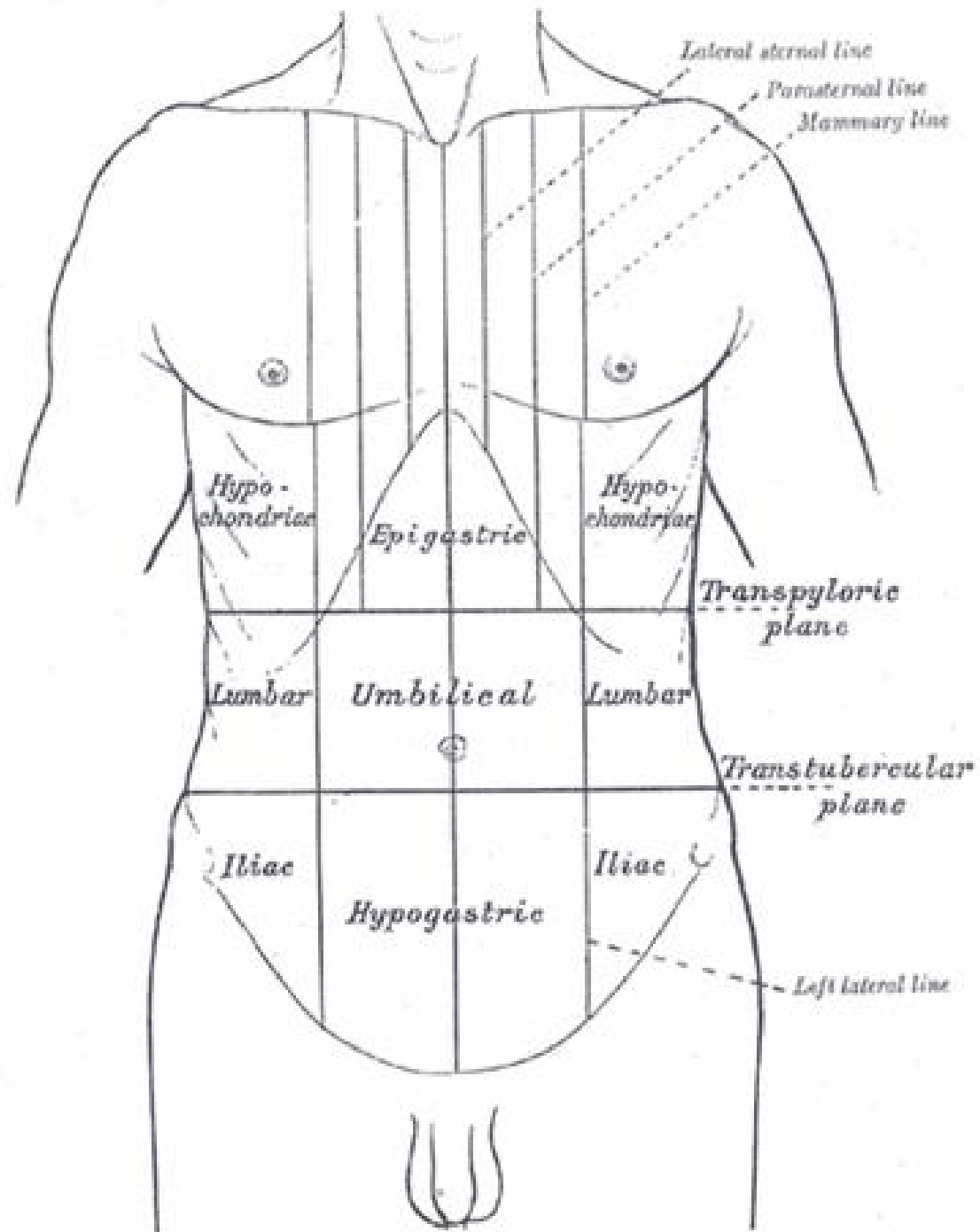


Body Cavities

Subdivisions of the Abdomen

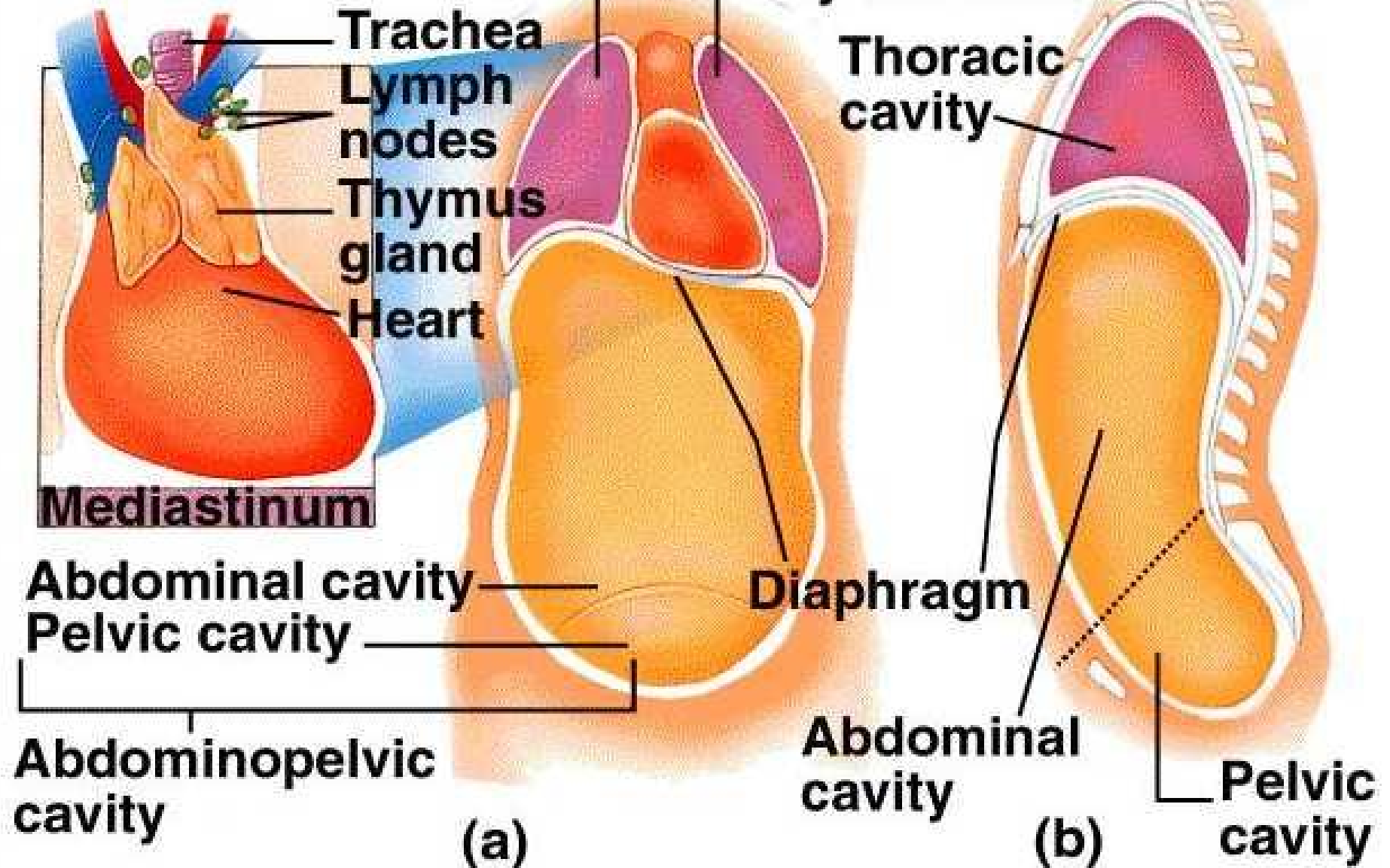


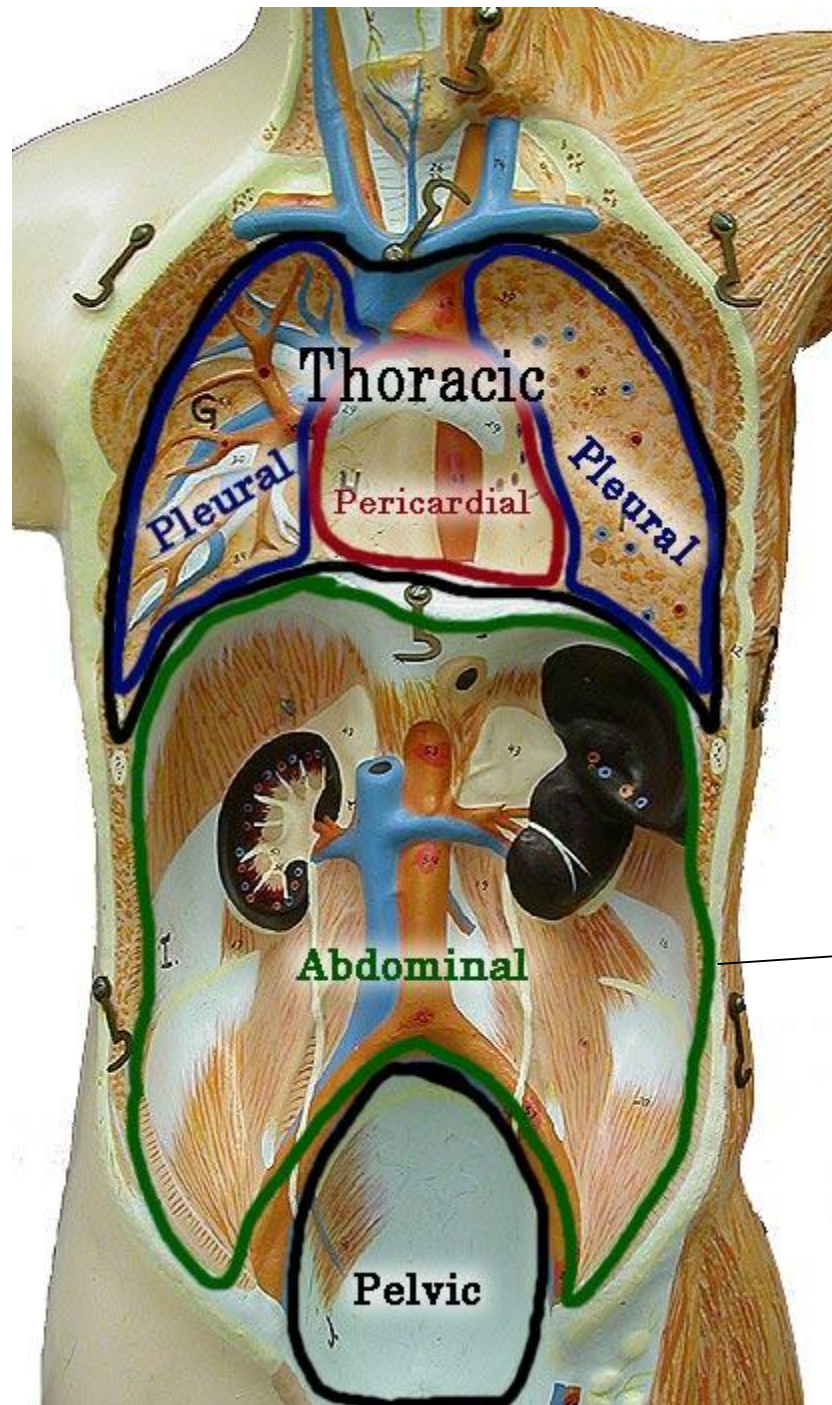




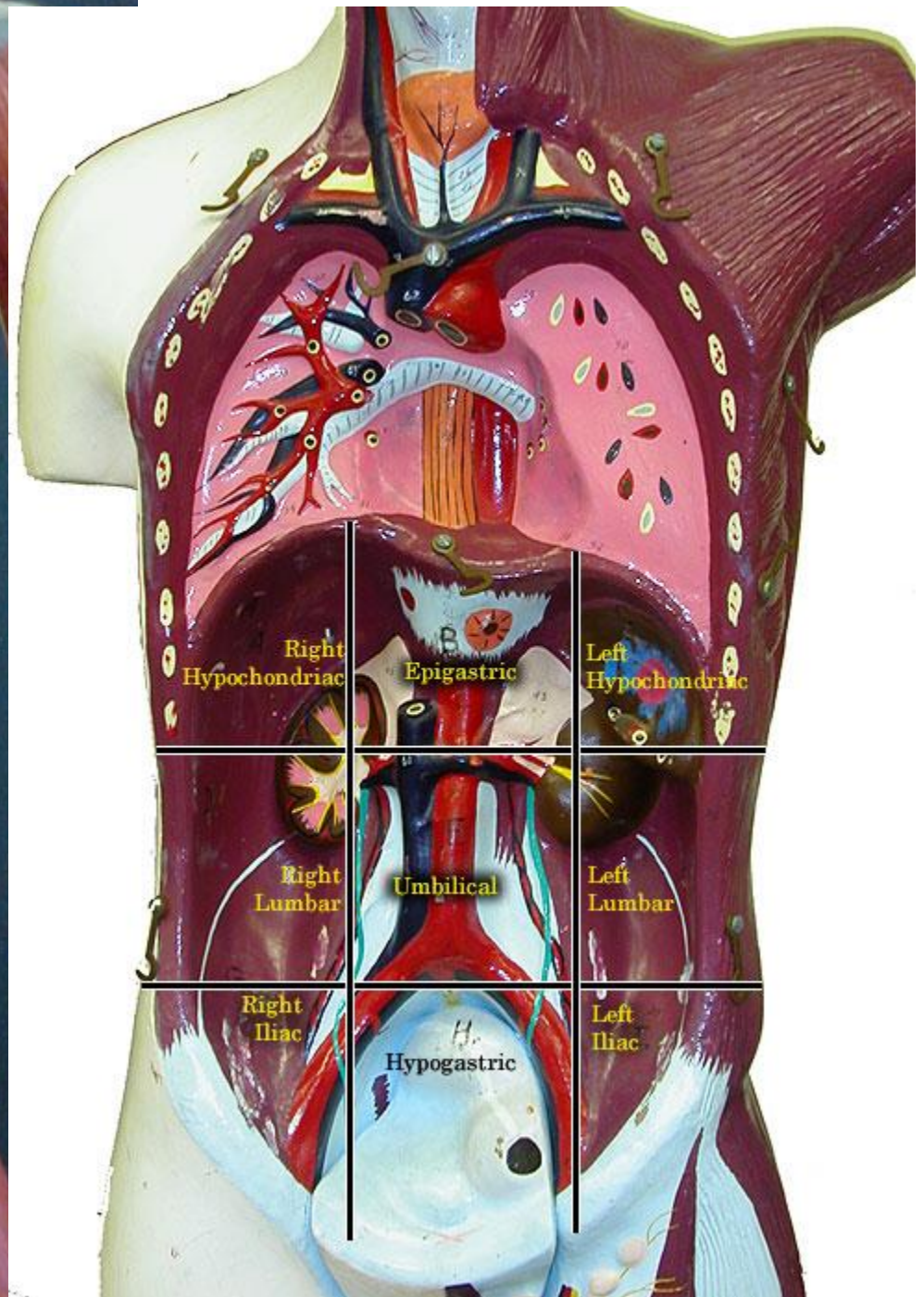
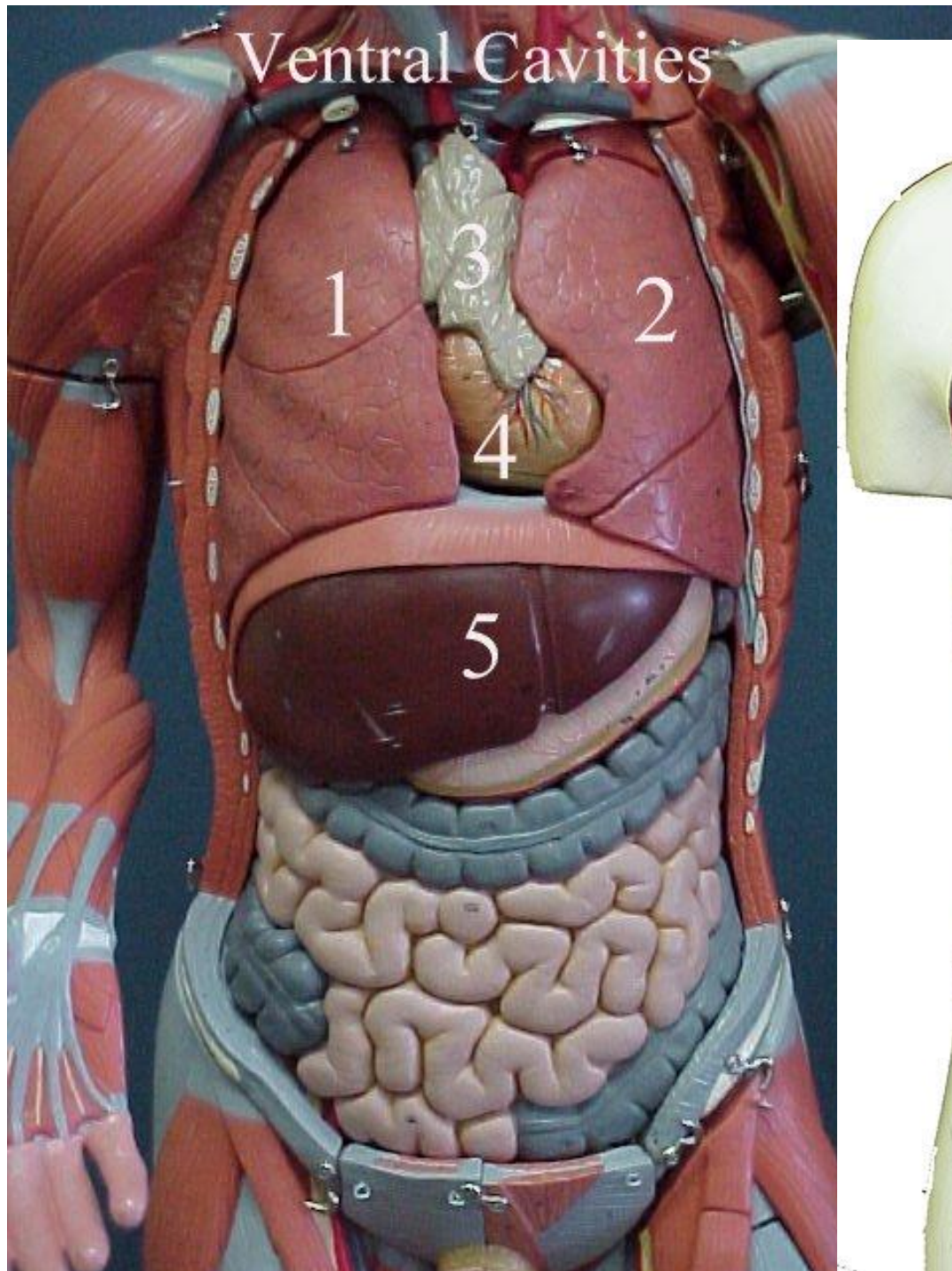
Trunk Cavities

Thoracic cavity divided by the mediastinum





peritoneum

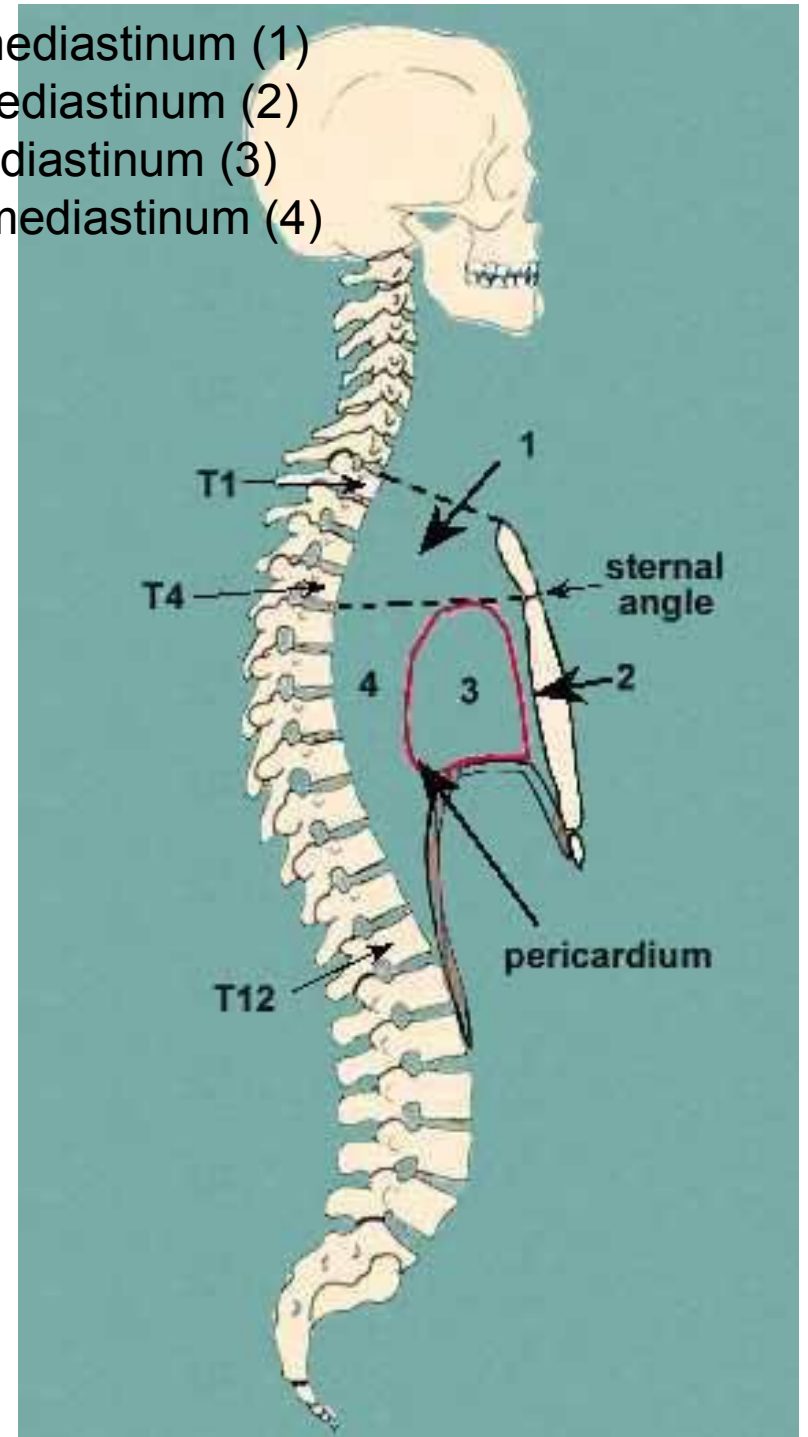


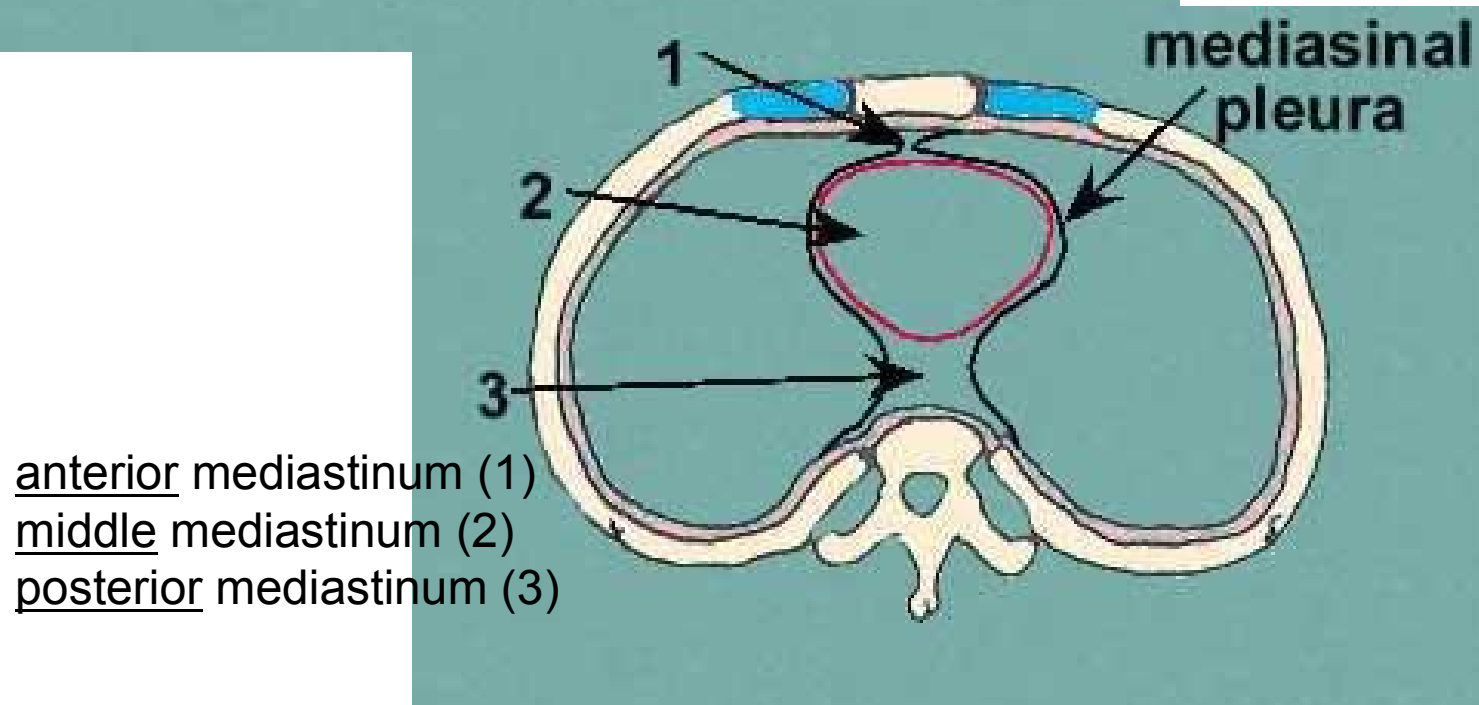
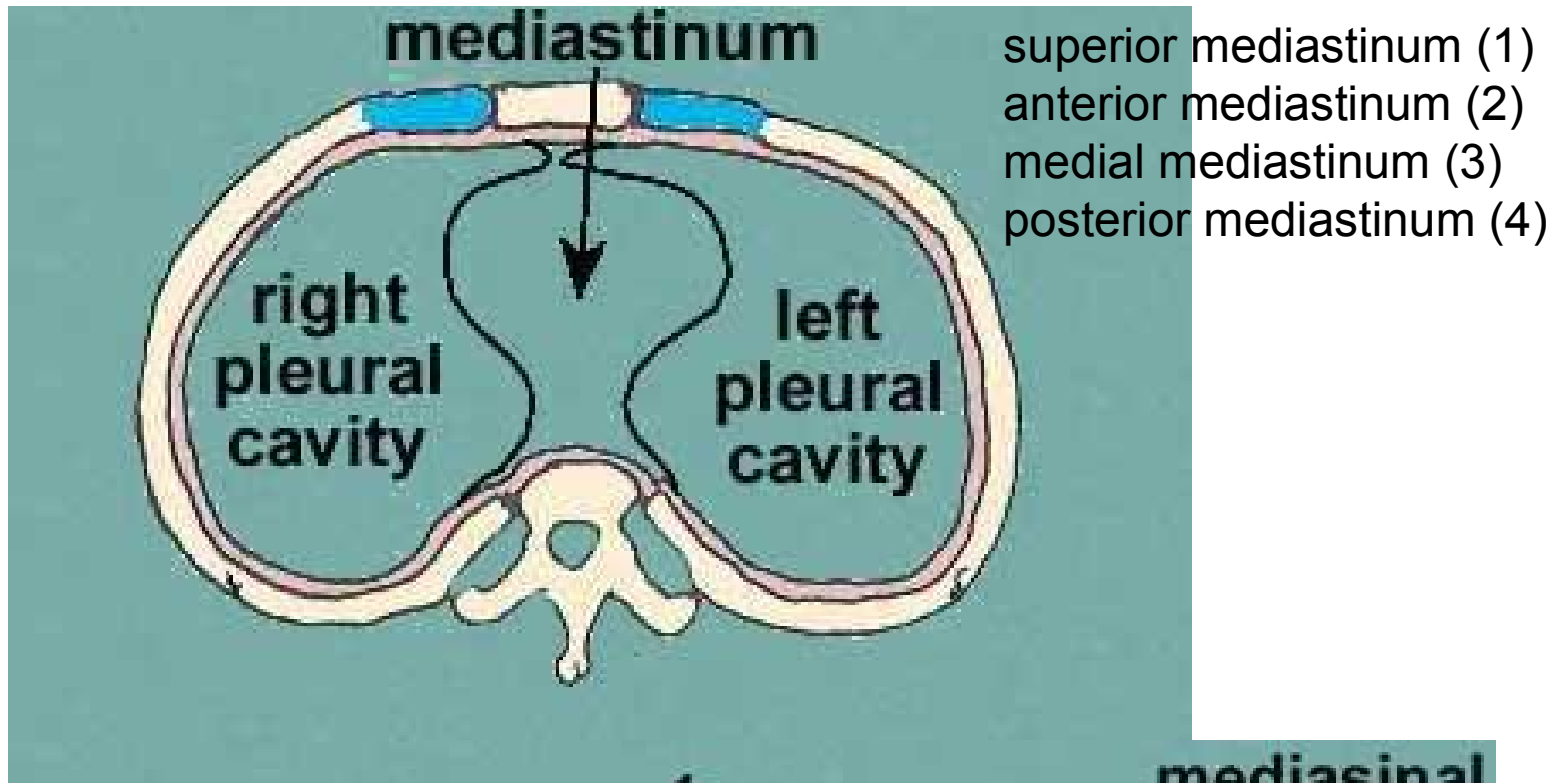
Mediastinum

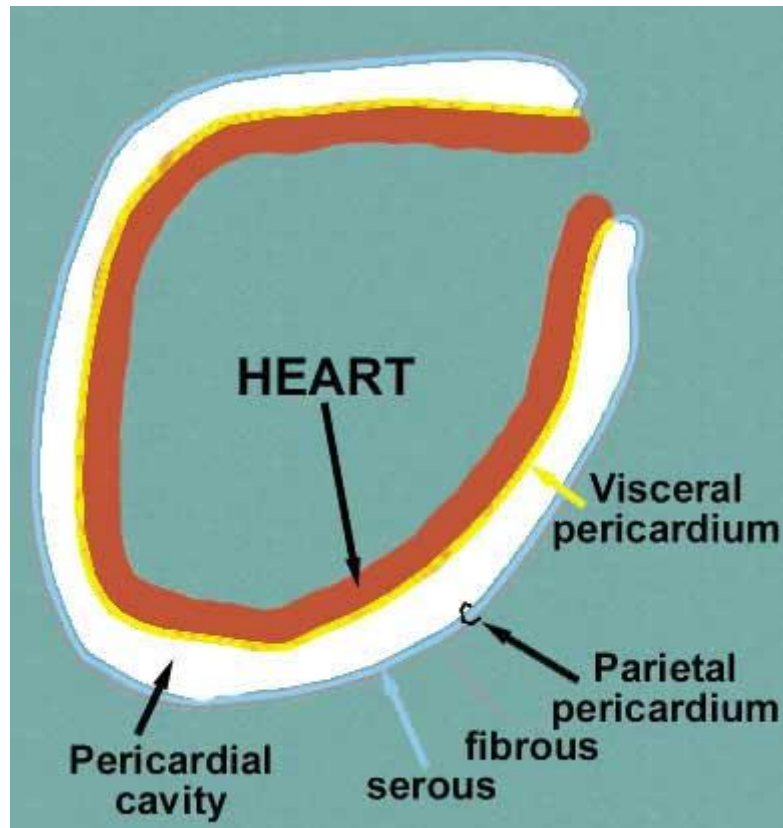
subdivided into

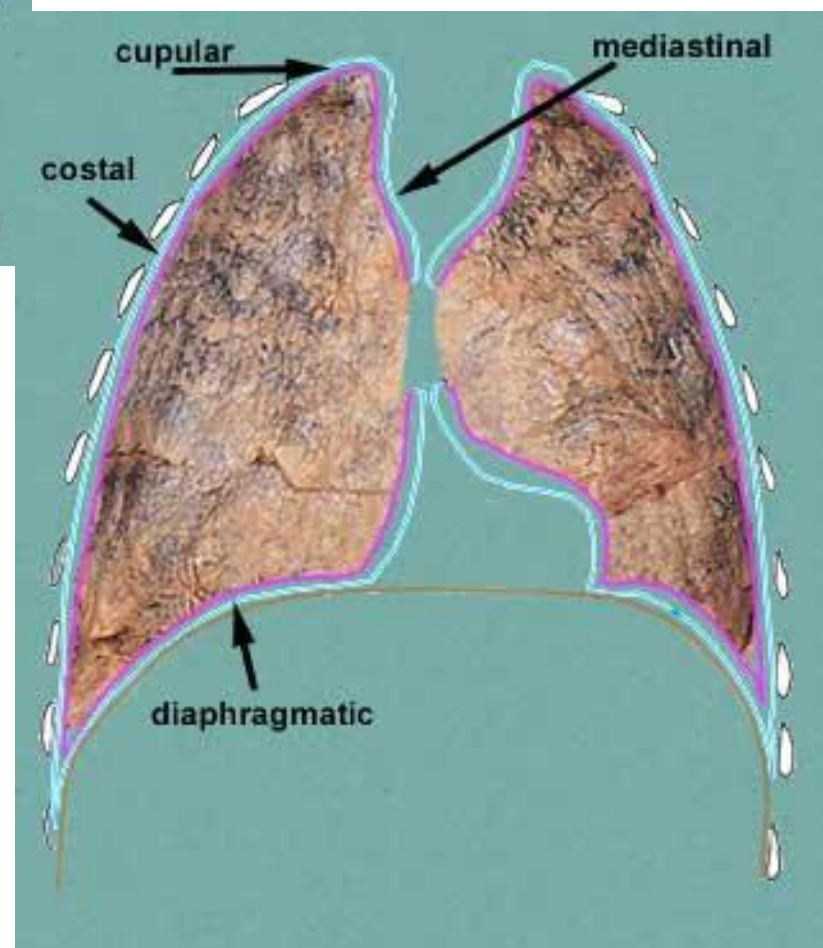
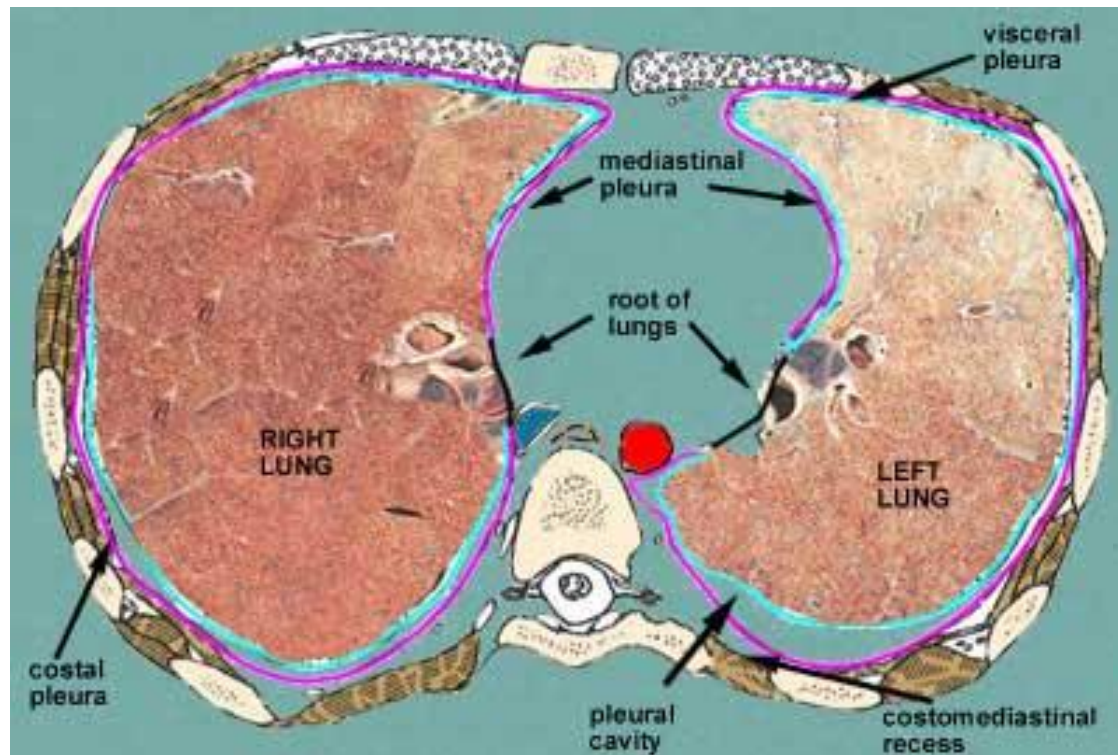
- superior
- inferior
 - Anterior-
 - anterior boundary is the back of the sternum.
 - Its posterior boundary is the pericardium of the heart.
 - Middle- paricardial cavity
 - Posterior-
 - anterior boundary is the posterior pericardial wall.
 - The posterior boundary is the anterior surfaces of the bodies of thoracic vertebrae T5-T12.

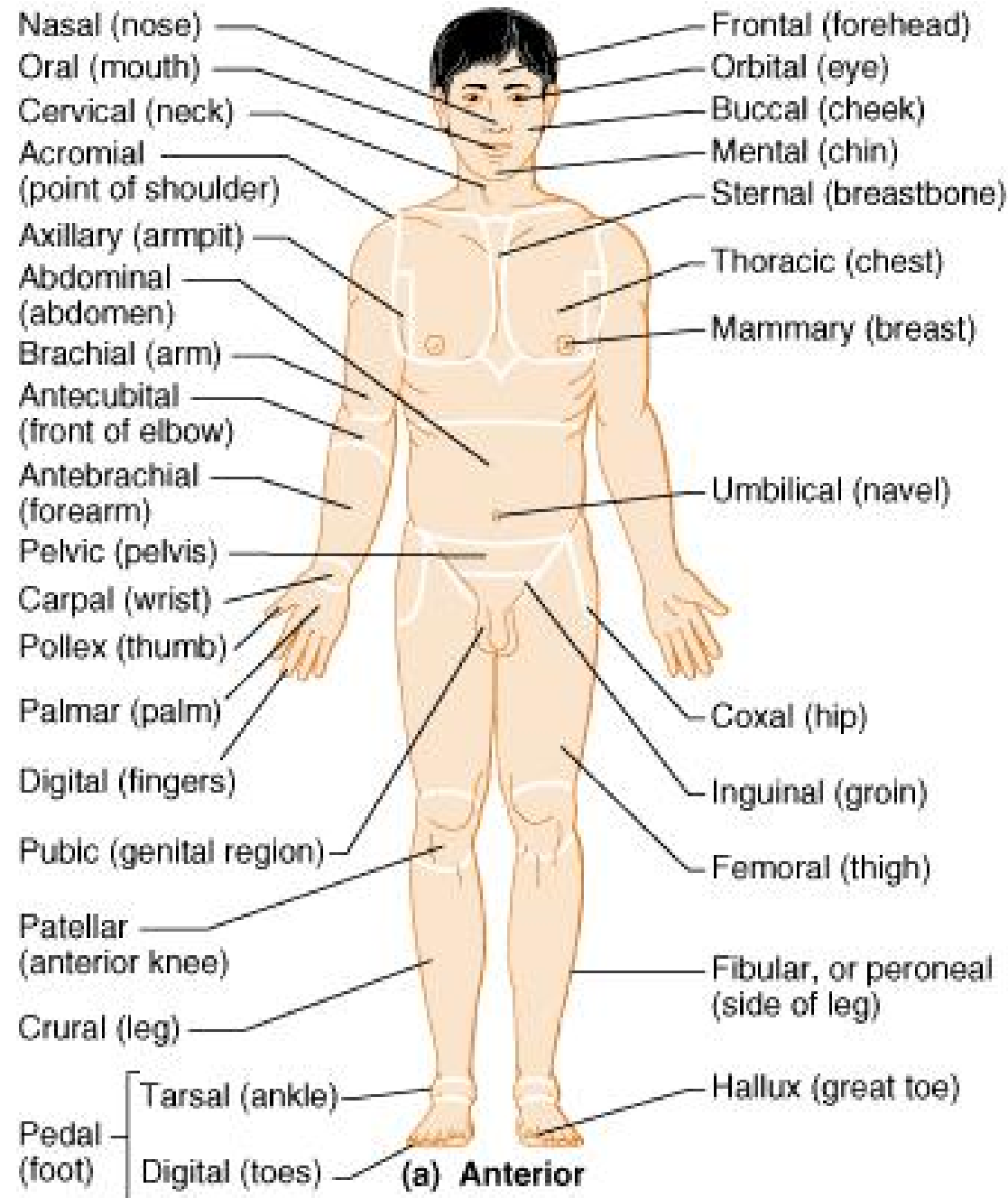
superior mediastinum (1)
anterior mediastinum (2)
medial mediastinum (3)
posterior mediastinum (4)

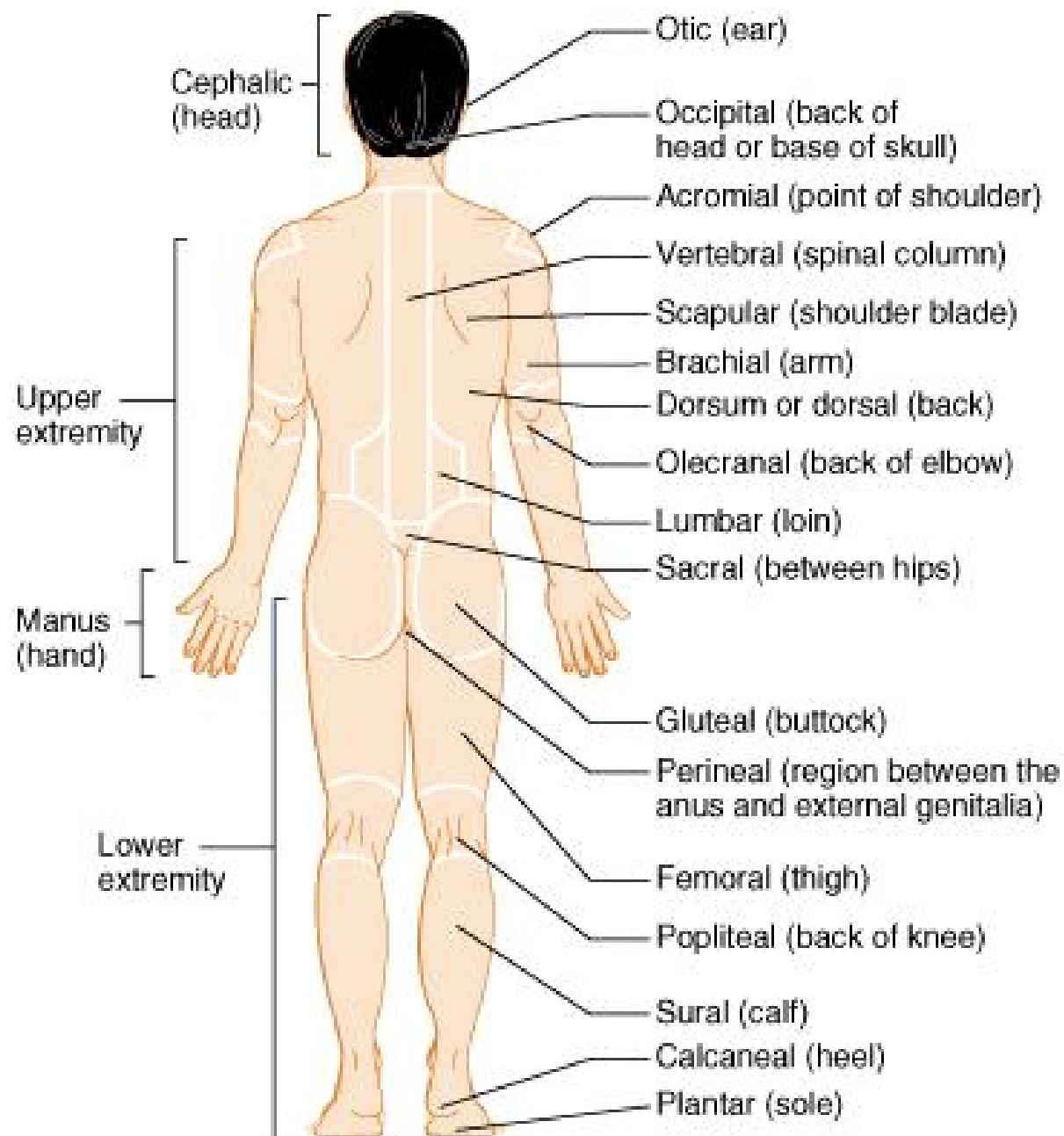






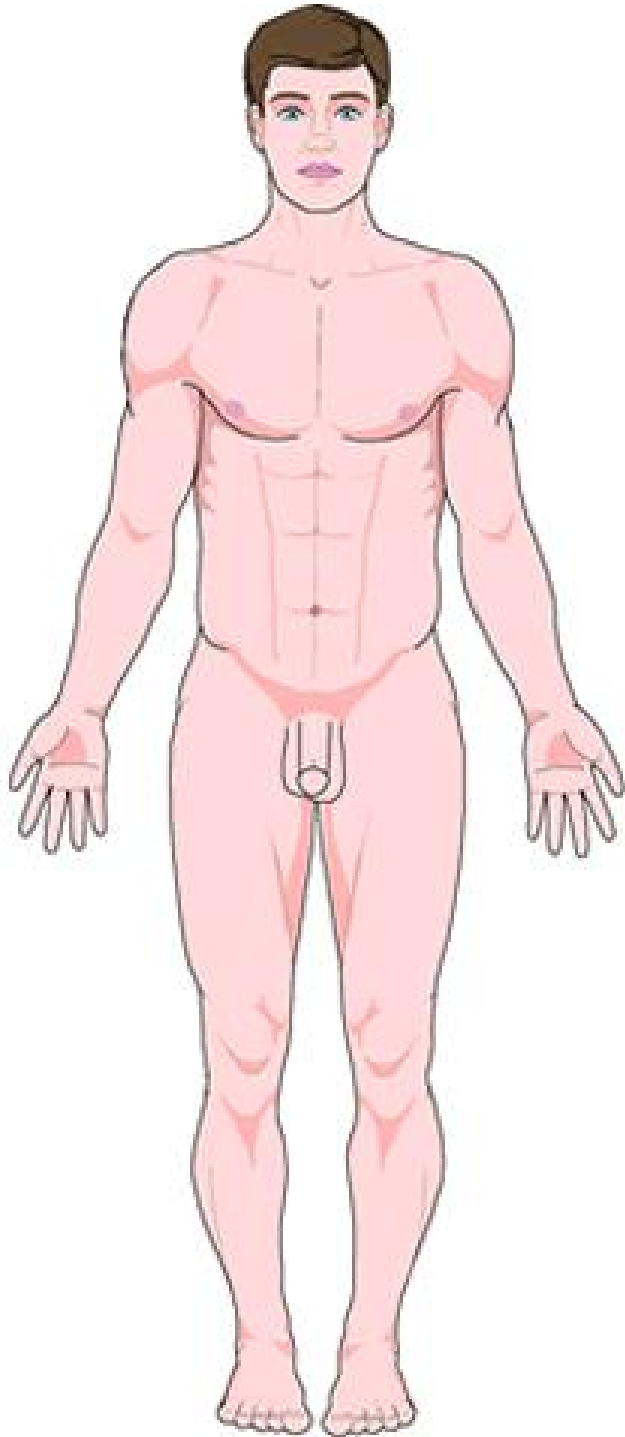






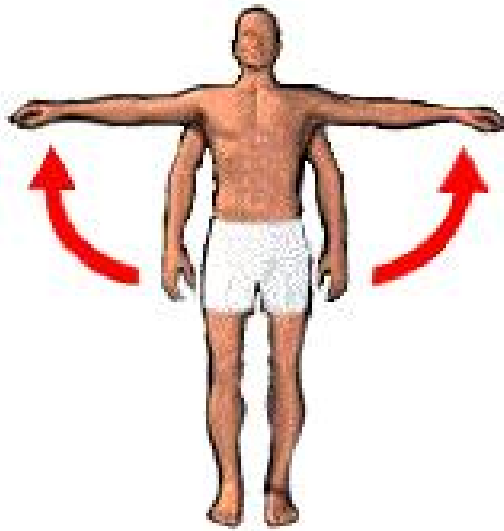
(b) Posterior

Anatomical Position

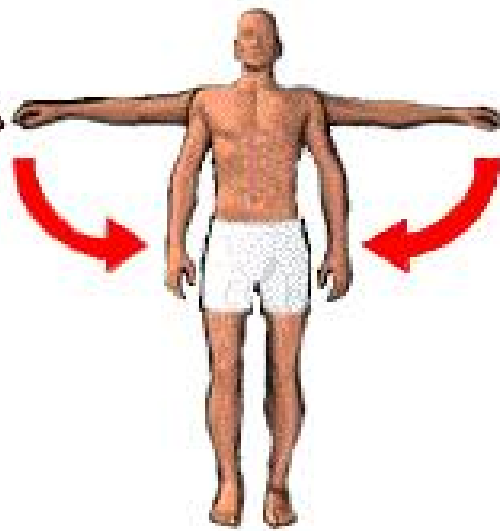


Pronation

Supination



Abduction



Adduction



Flexion



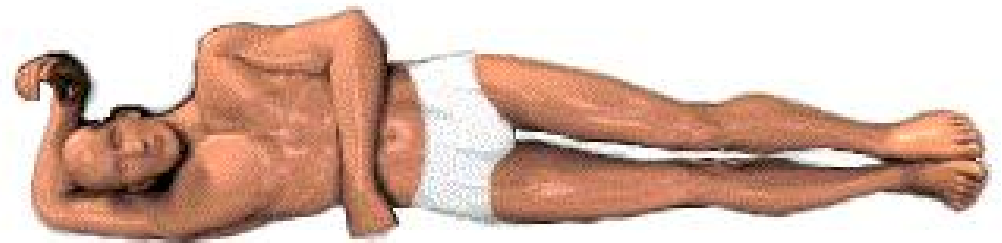
Extension



Supine



Prone

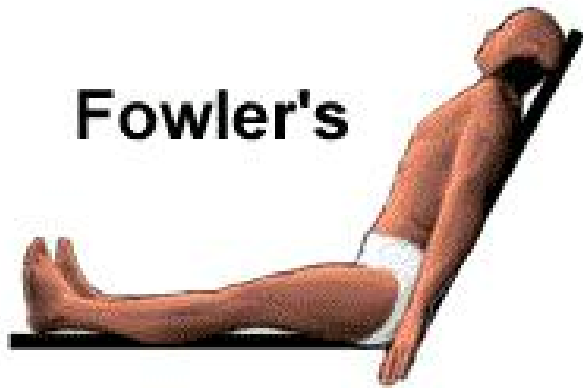


Right Lateral Recumbent

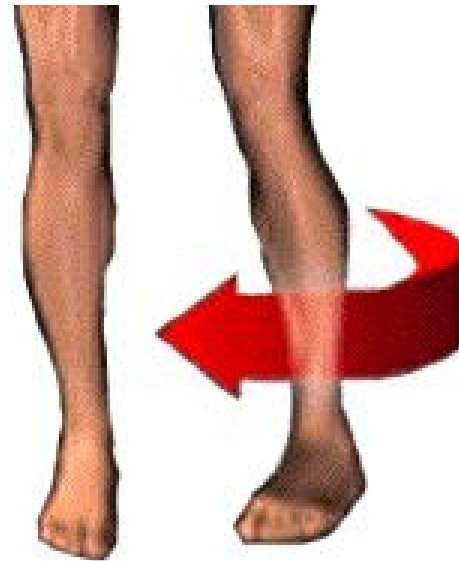


Left Lateral Recumbent

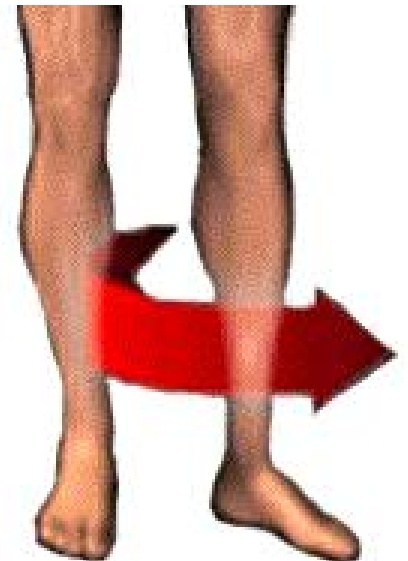
Fowler's



Trendelenberg



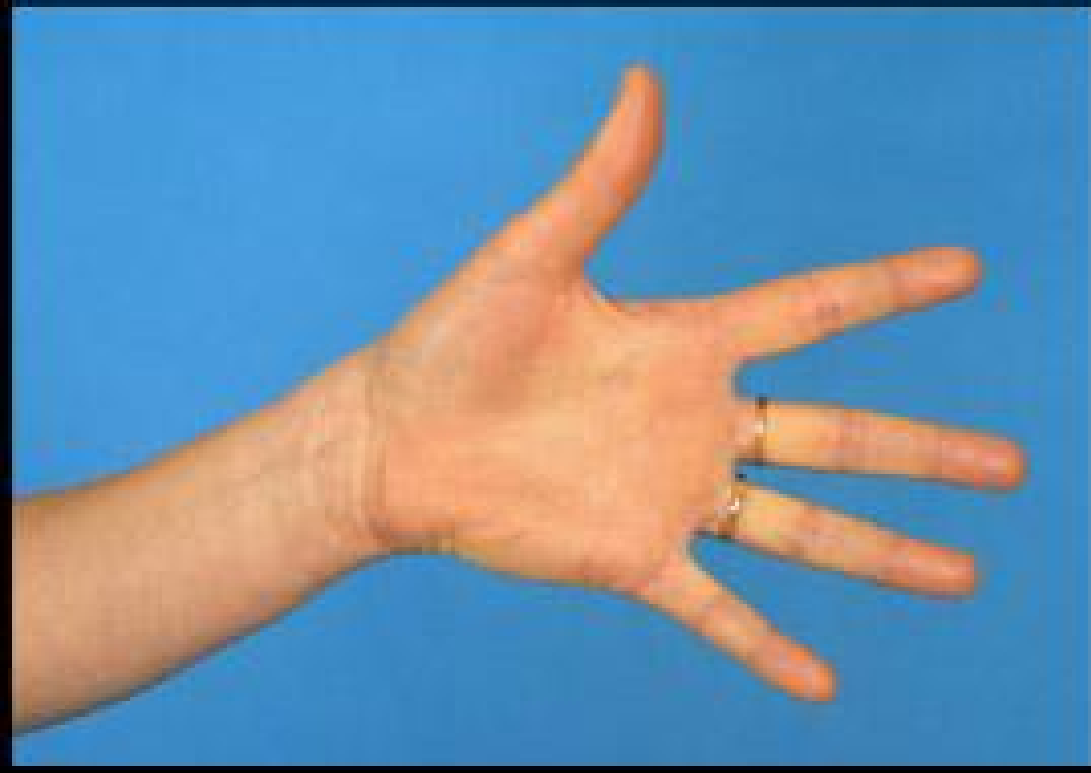
Medial Rotation



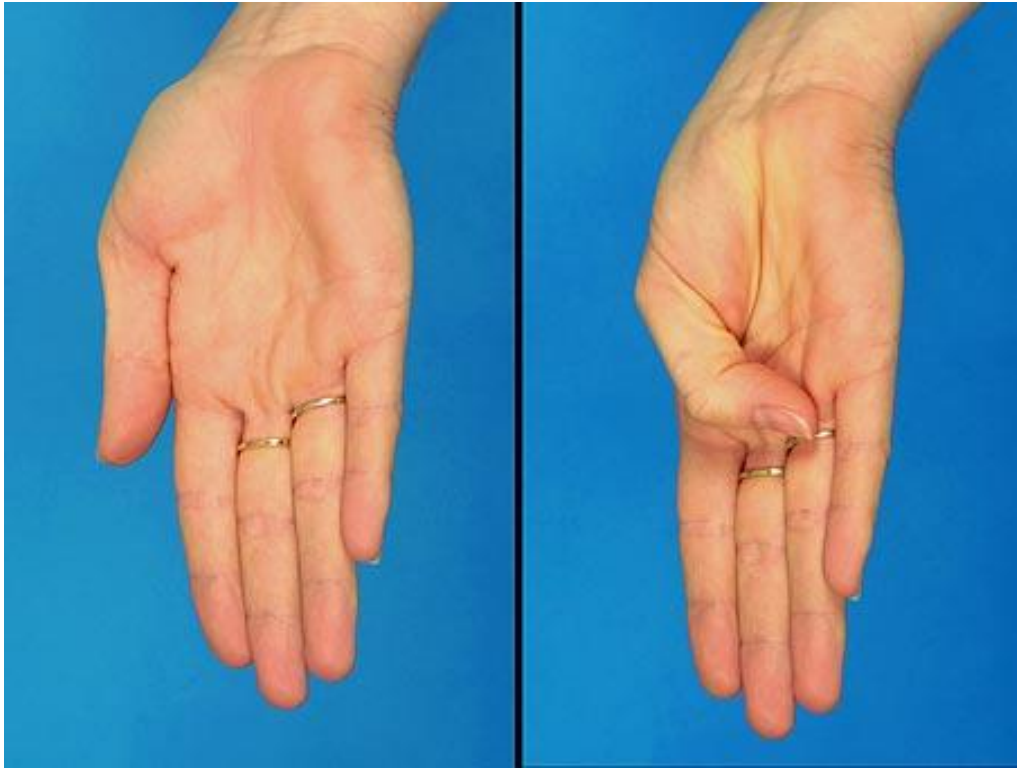
Lateral Rotation



Adduction

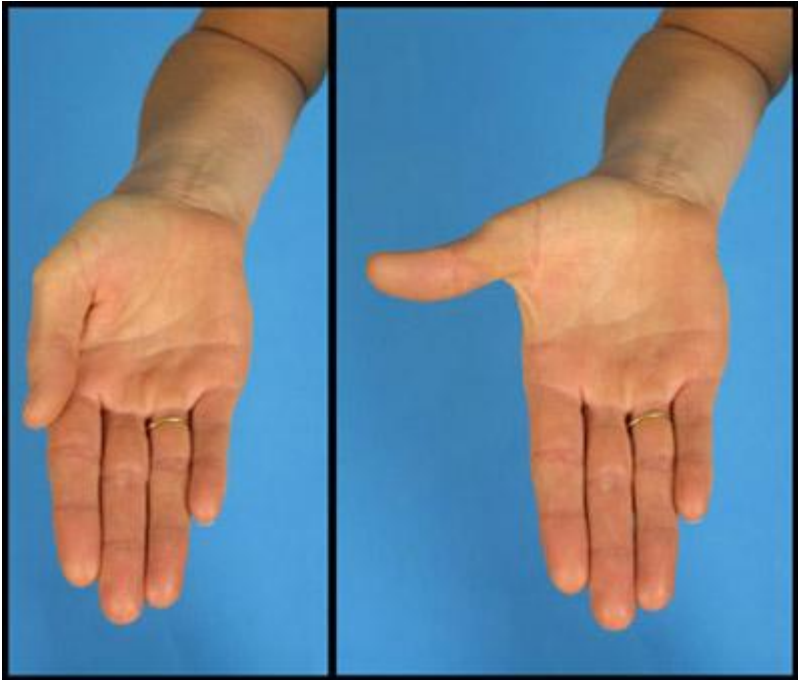


Abduction



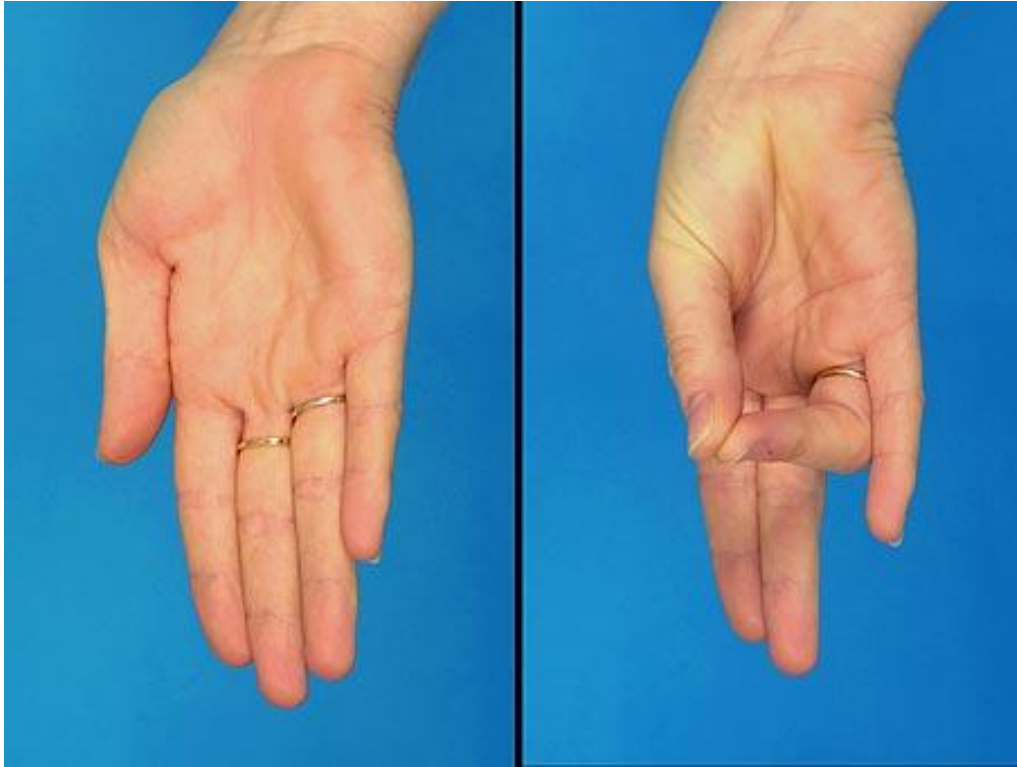
Neutral (adduction)

Flexion



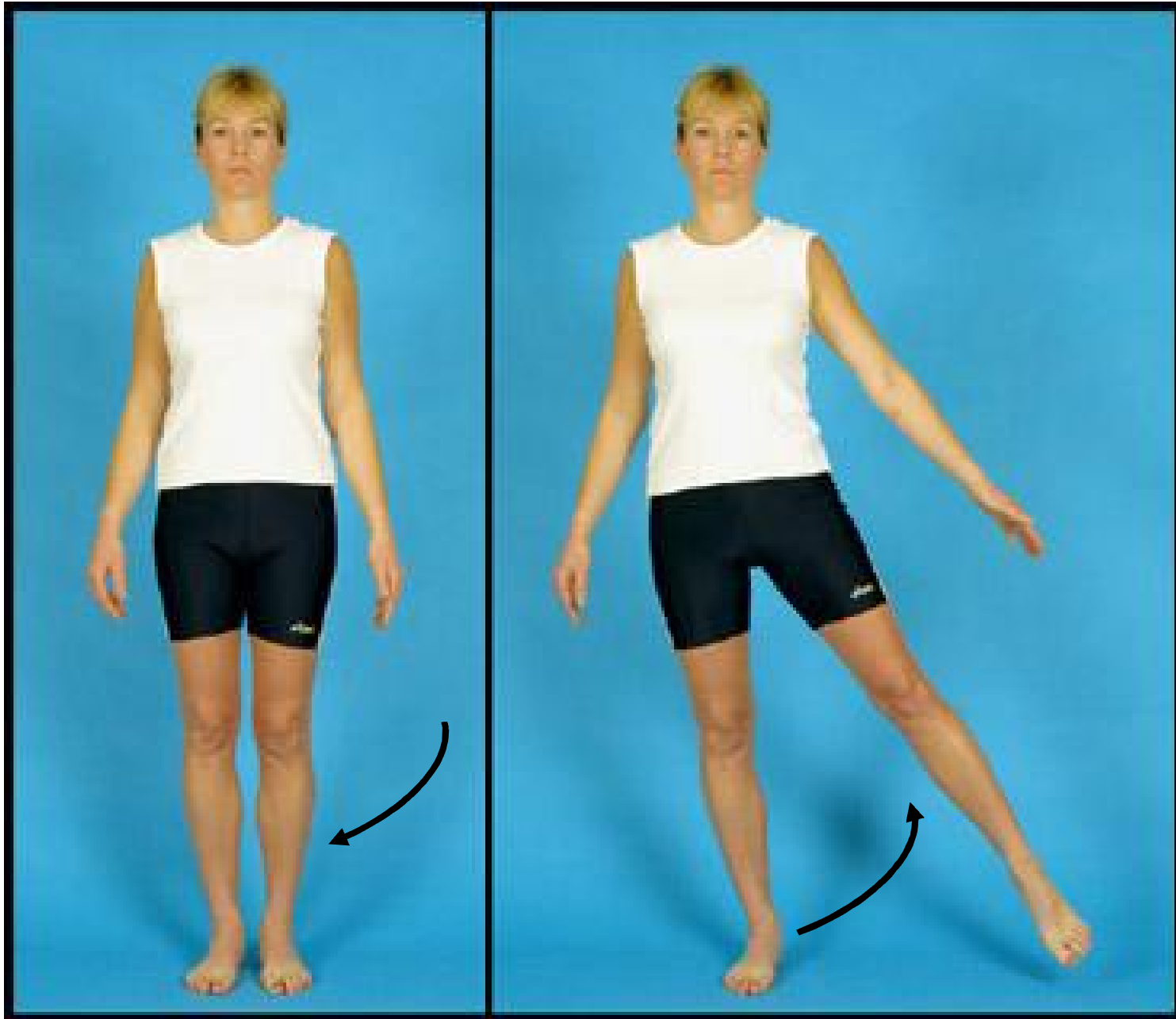
Neutral

Extension



Neutral

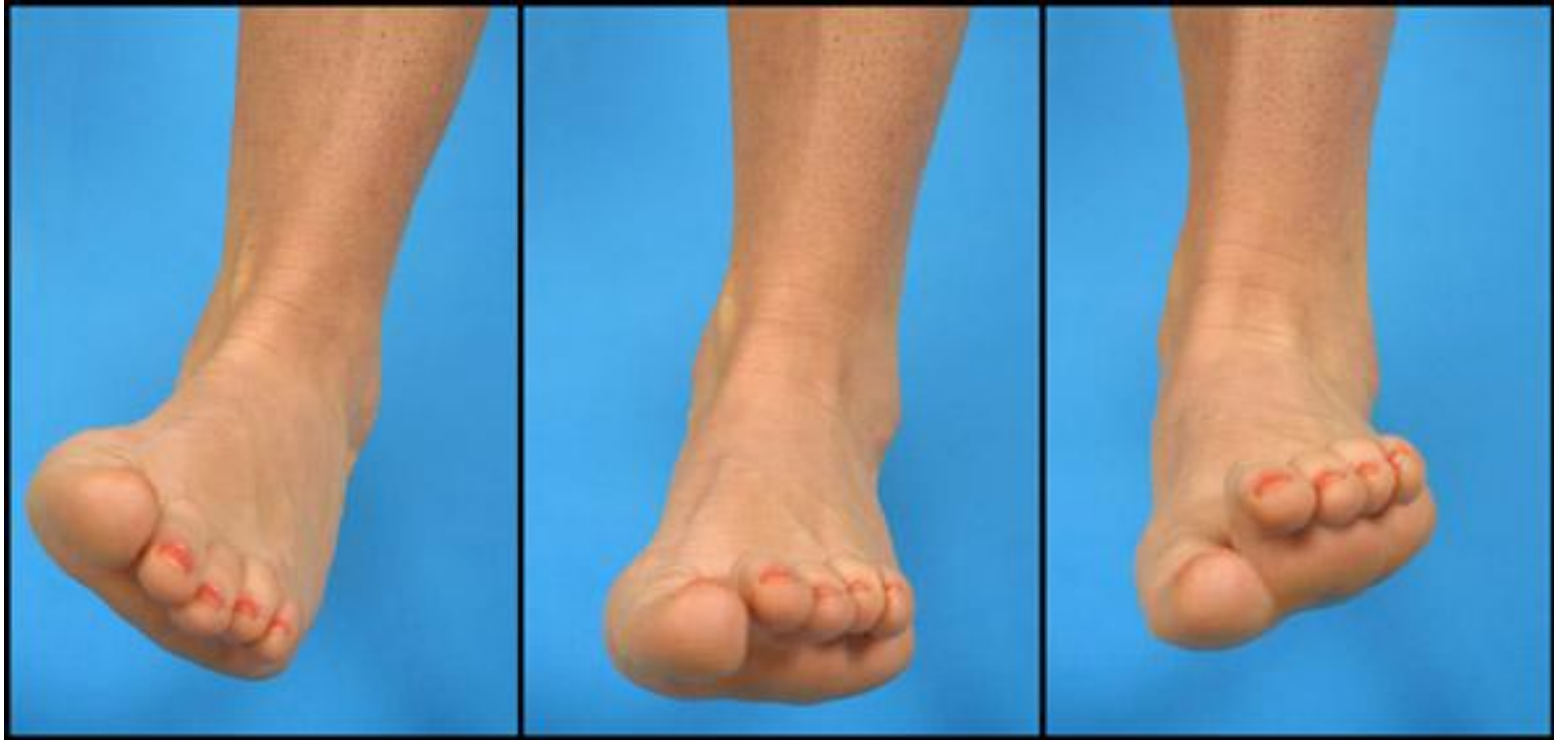
Opposition



Adduction

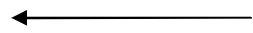
Abduction

Medial

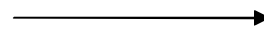


Lateral

Inversion



Neutral



Eversion

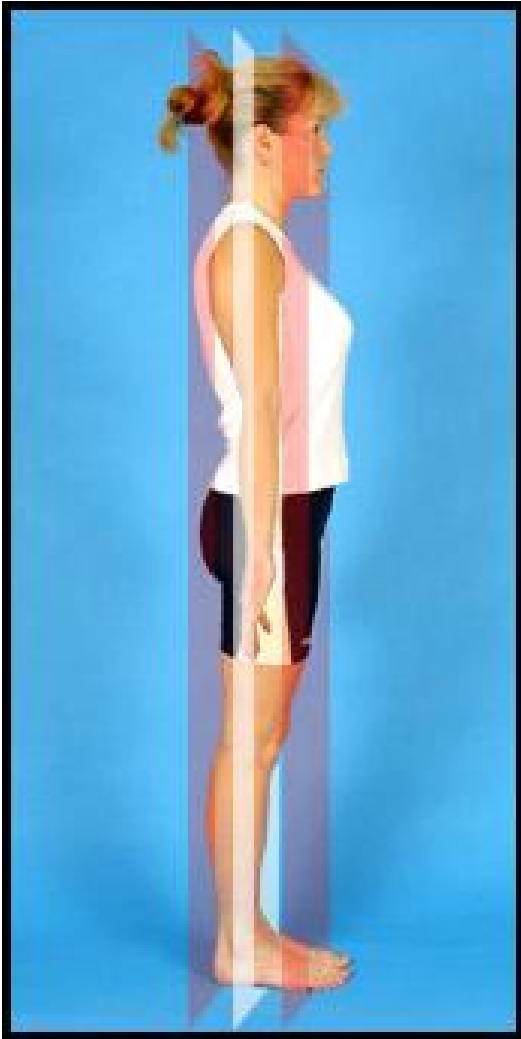


**Axial (Transverse)
sections**

Superior



Inferior



Coronal Plane

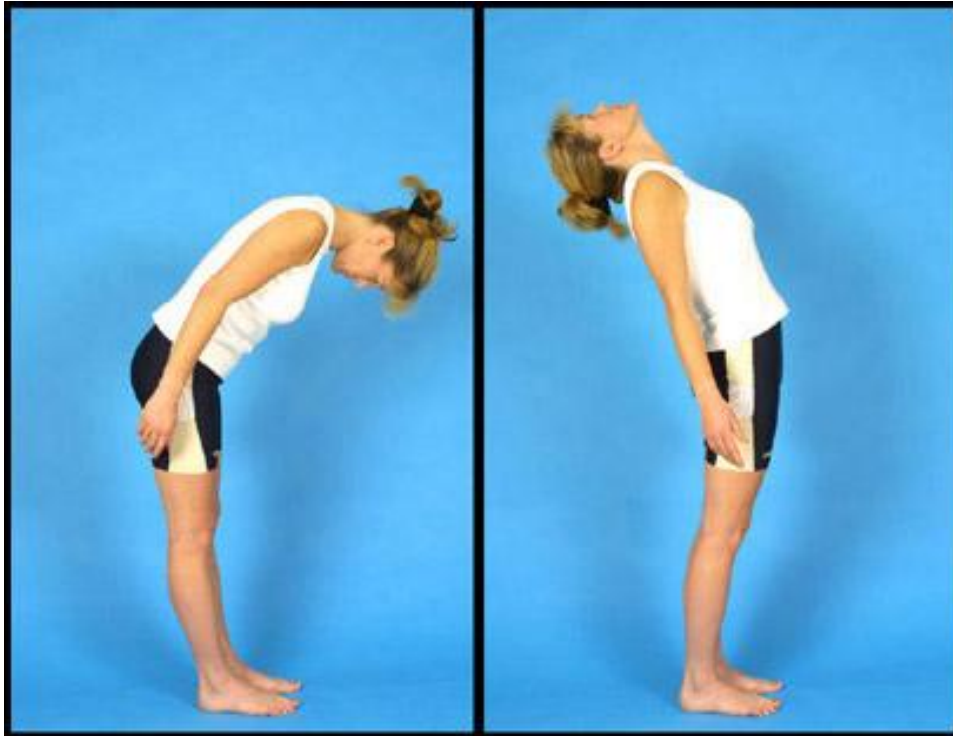
Median Plane (Saggital)





Anterior

Posterior



Hip

Shoulder

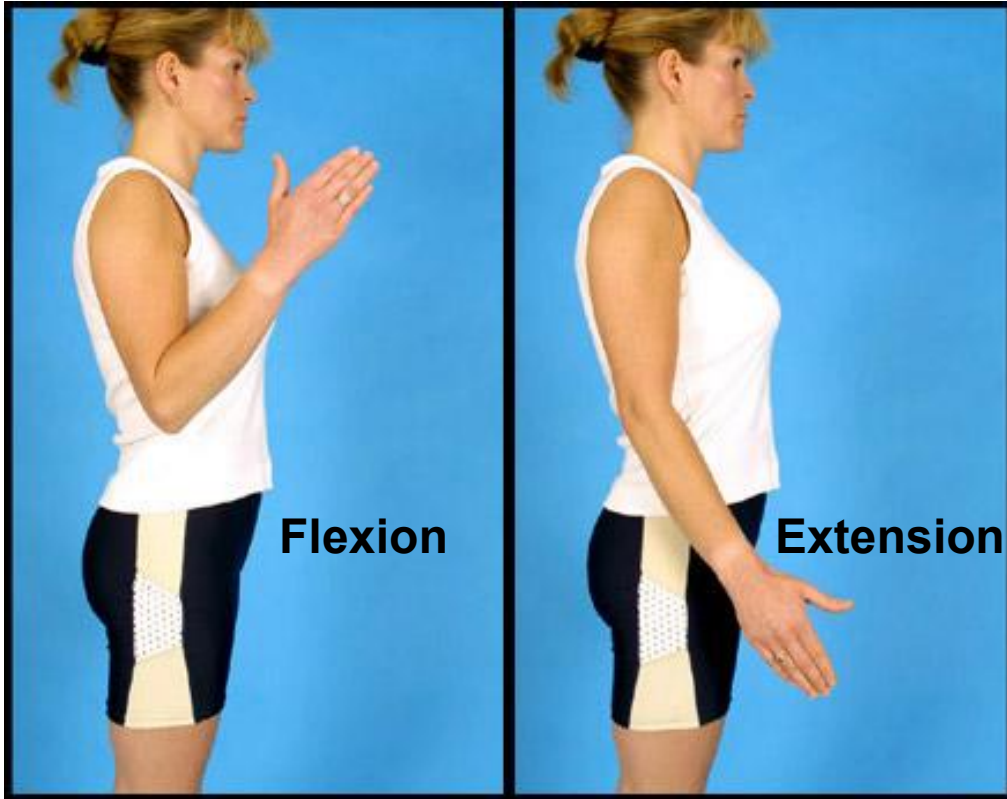
Flexion

Extension

Hip flexion

Extension



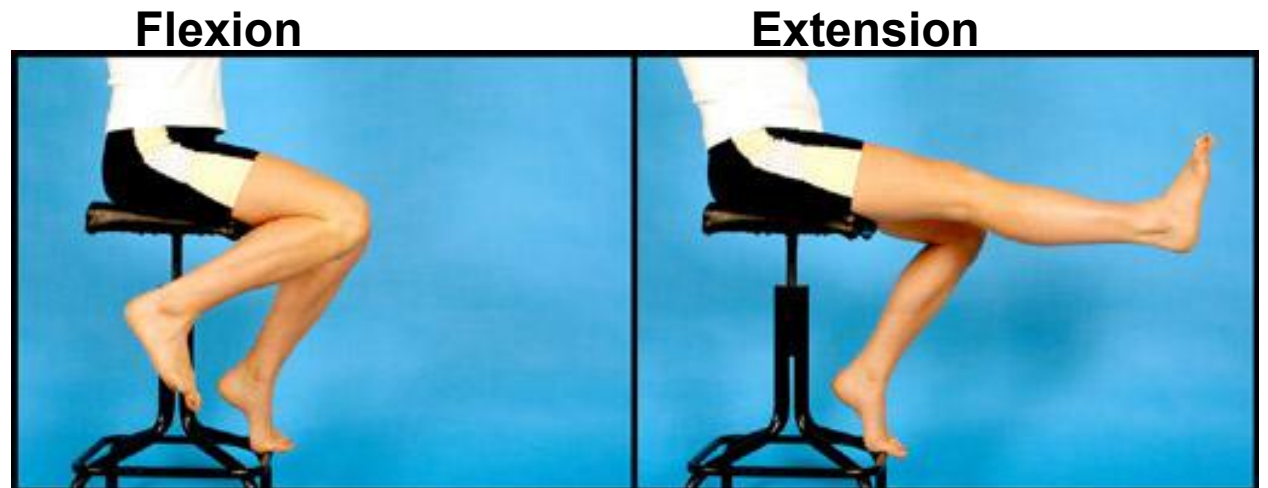


Flexion

Extension

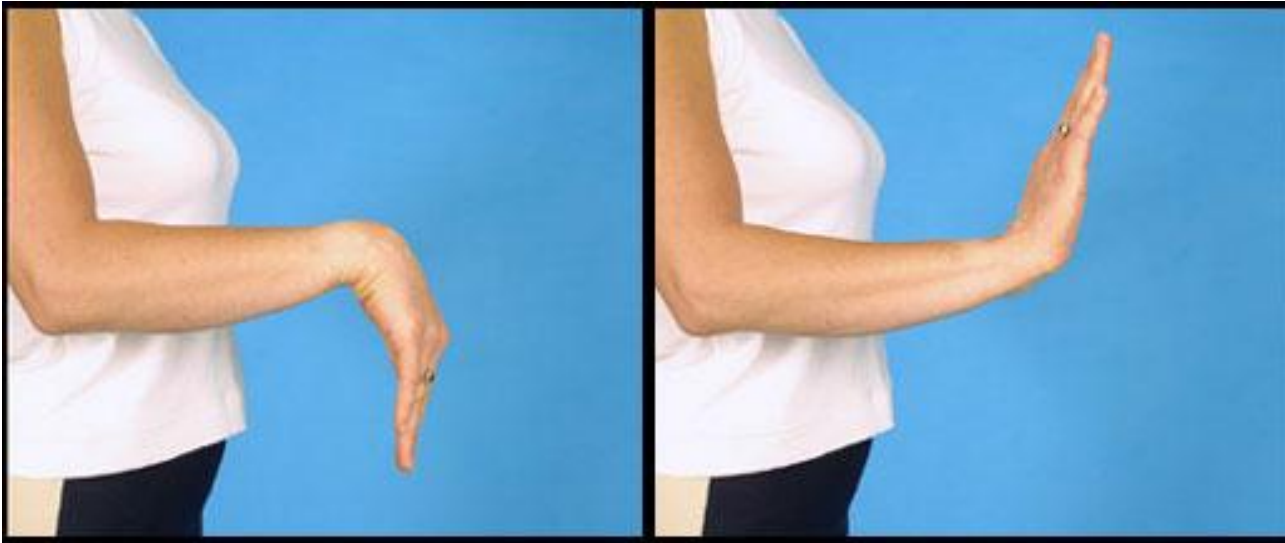
Elbow

Knee



Flexion

Extension



Wrist

Flexion

Extension

Dorsiflexion



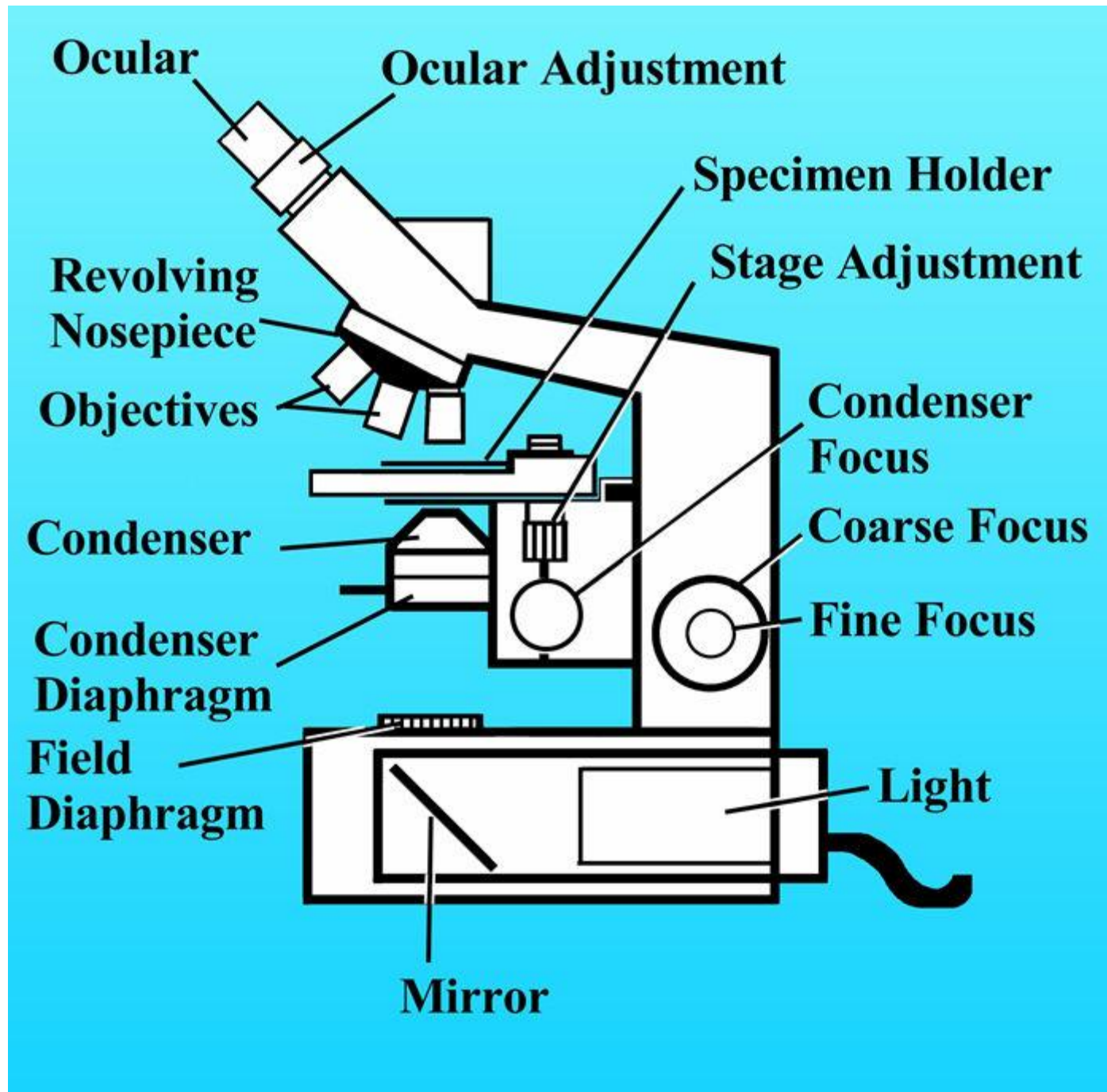
Neutral



Plantar flexion



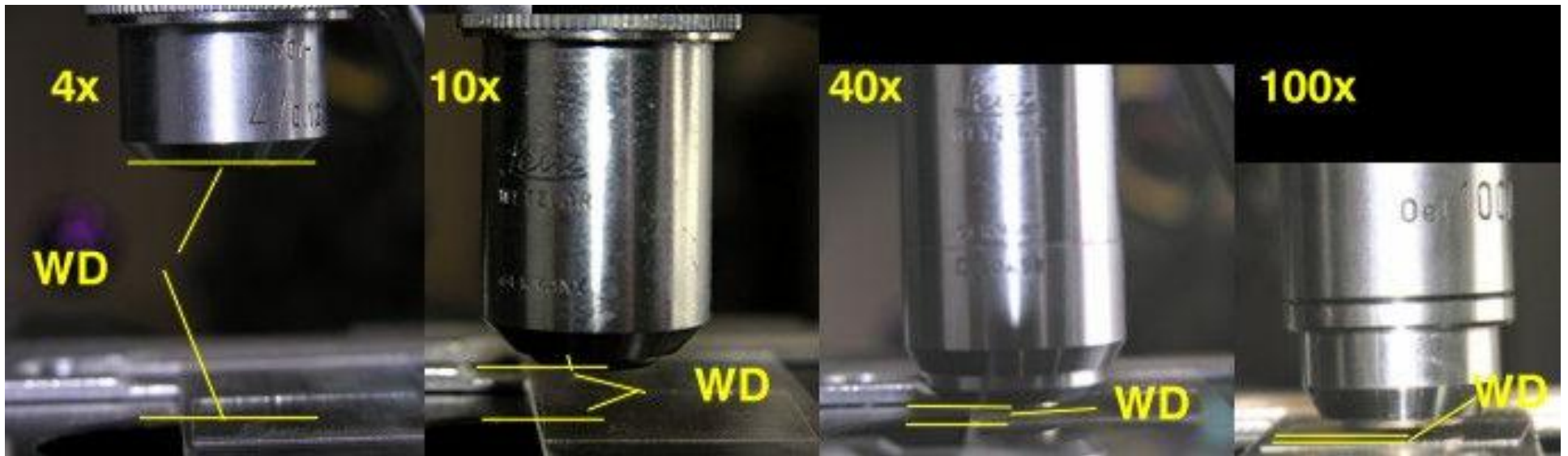
The Microscope



Objectives



Objectives



Lens Paper

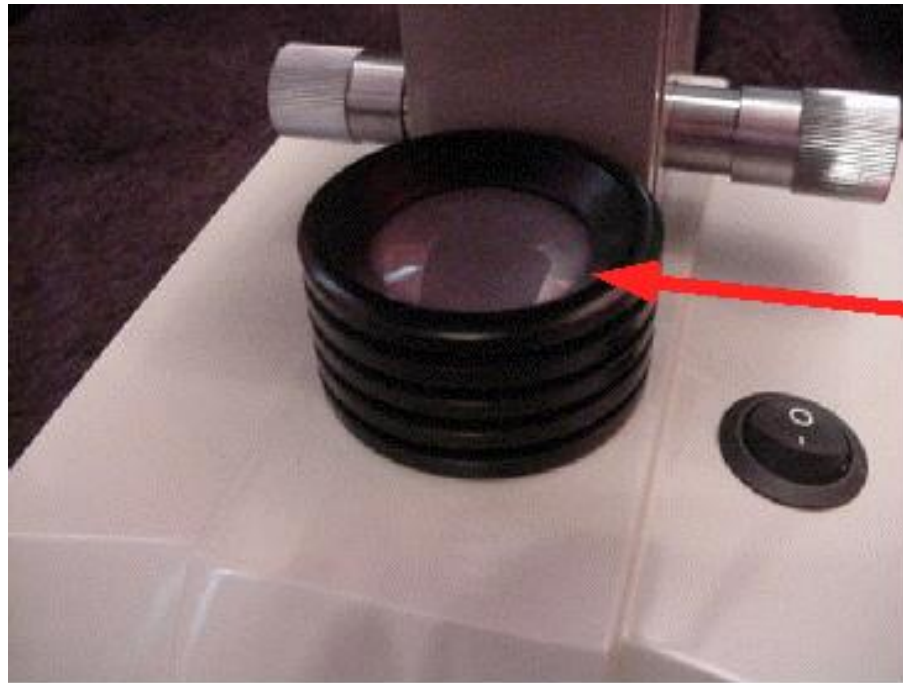


Cover Slips





- Stage
- Arm
- Base
- Light Source
- Body Tube
- Eyepiece
- Power Switch Fine
- Adjustment Knob & Coarse Adjustment Knob
- Stage Clips
- Stage Stop
- Nosepiece, Aperture
- Objectives
- Diaphragm



Light



Stage

Eyepiece



Body Tube

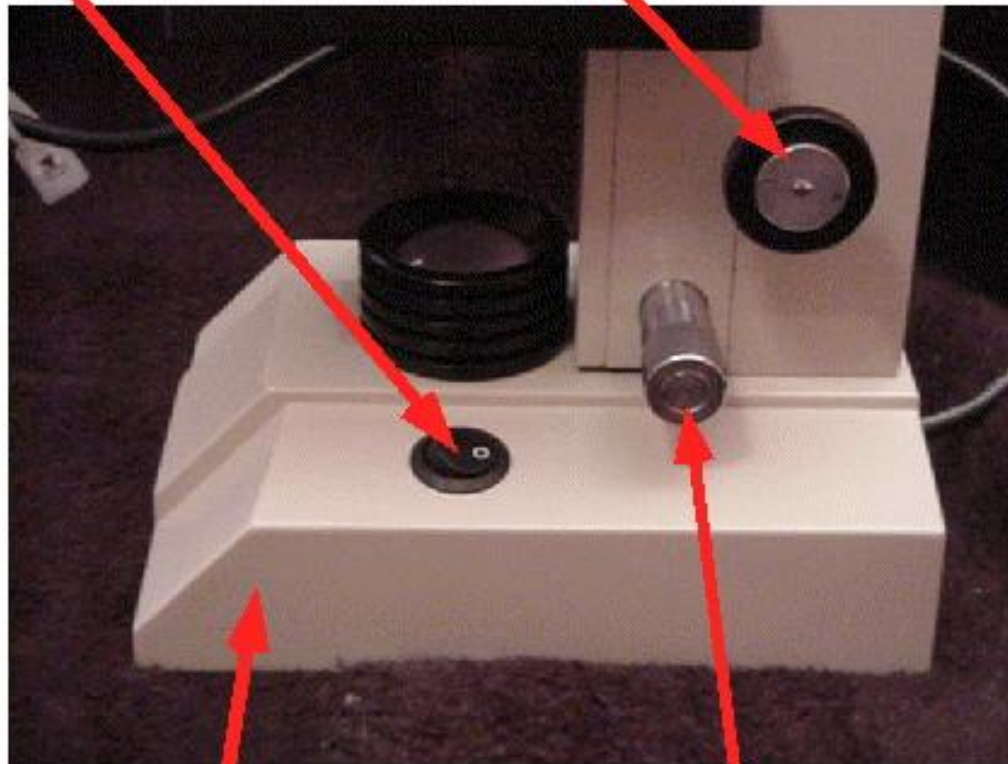
Stage Clips



Objectives

Coarse Adjustment Knob

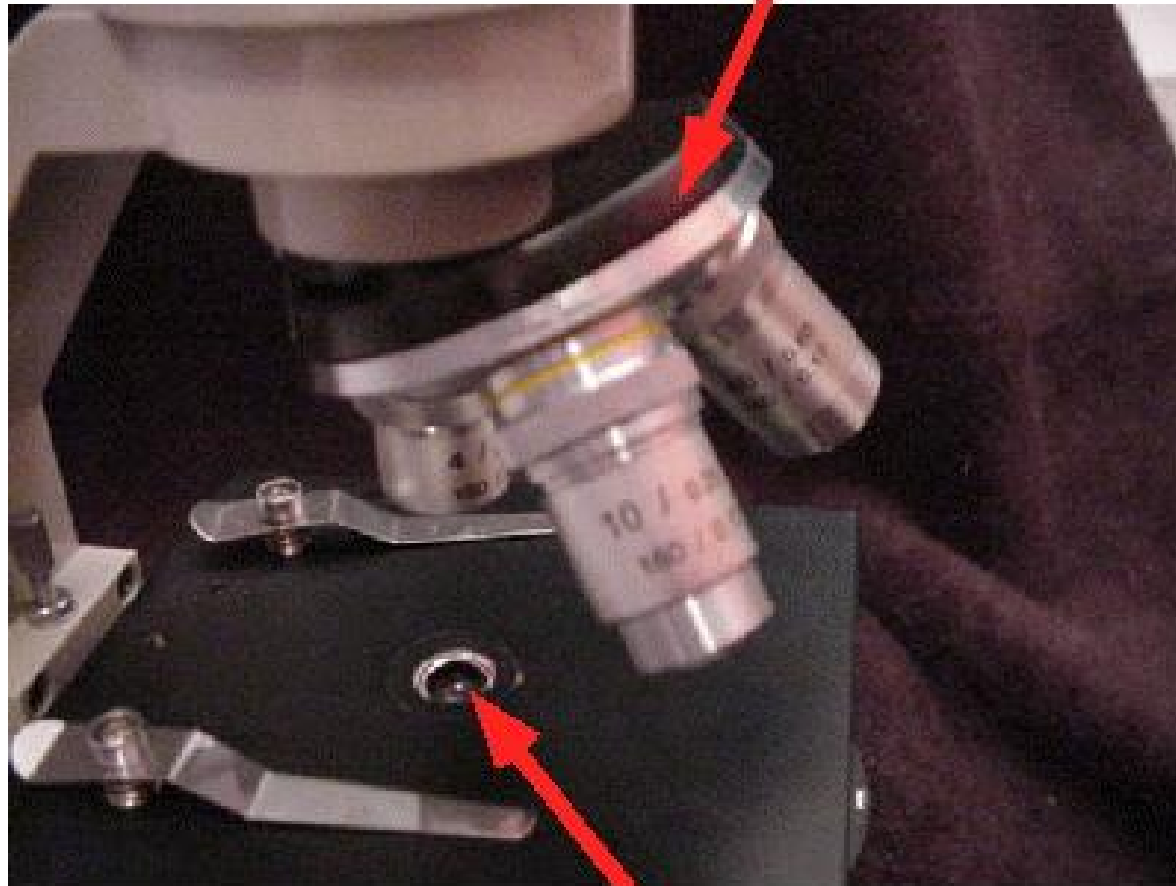
On/Off Switch



Fine Adjustment Knob

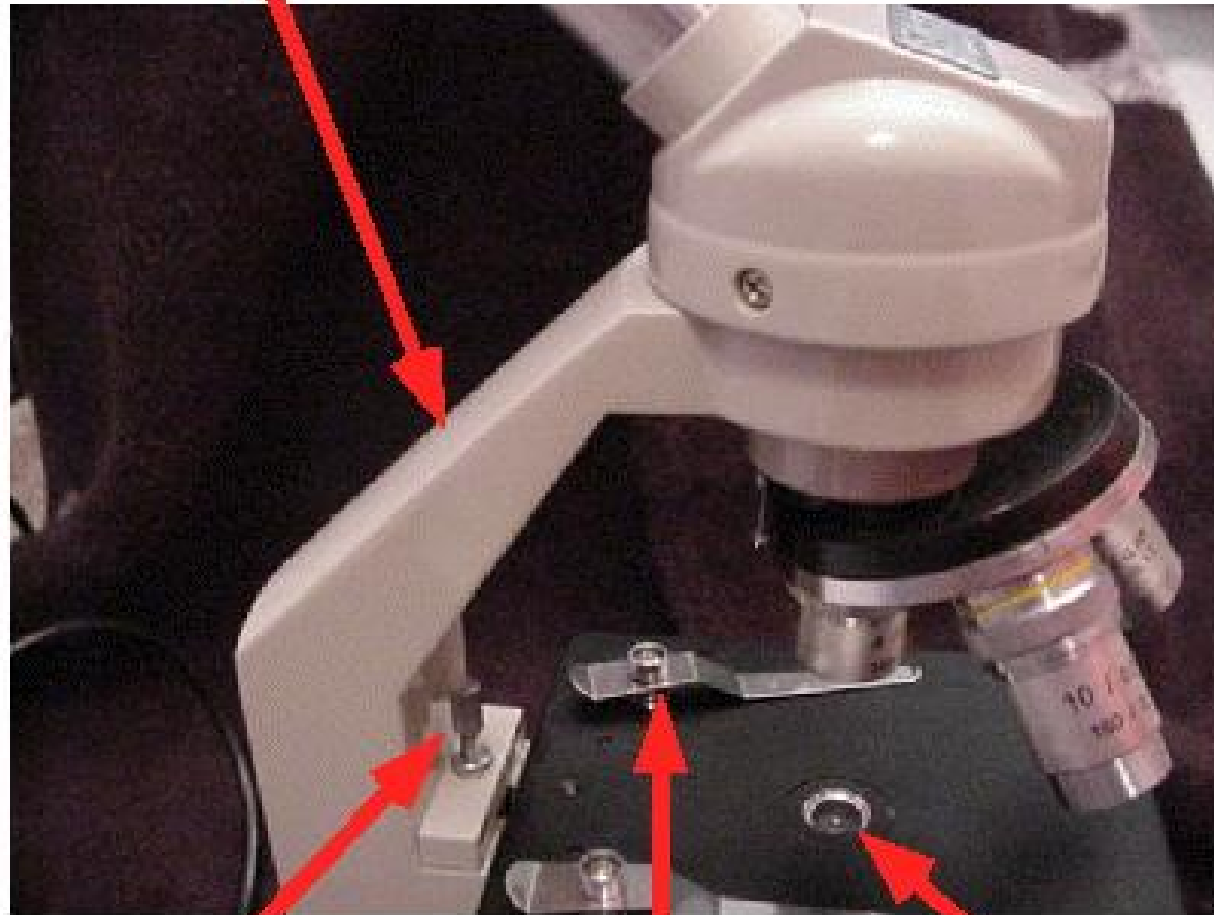
Base

Nosepiece



Aperture

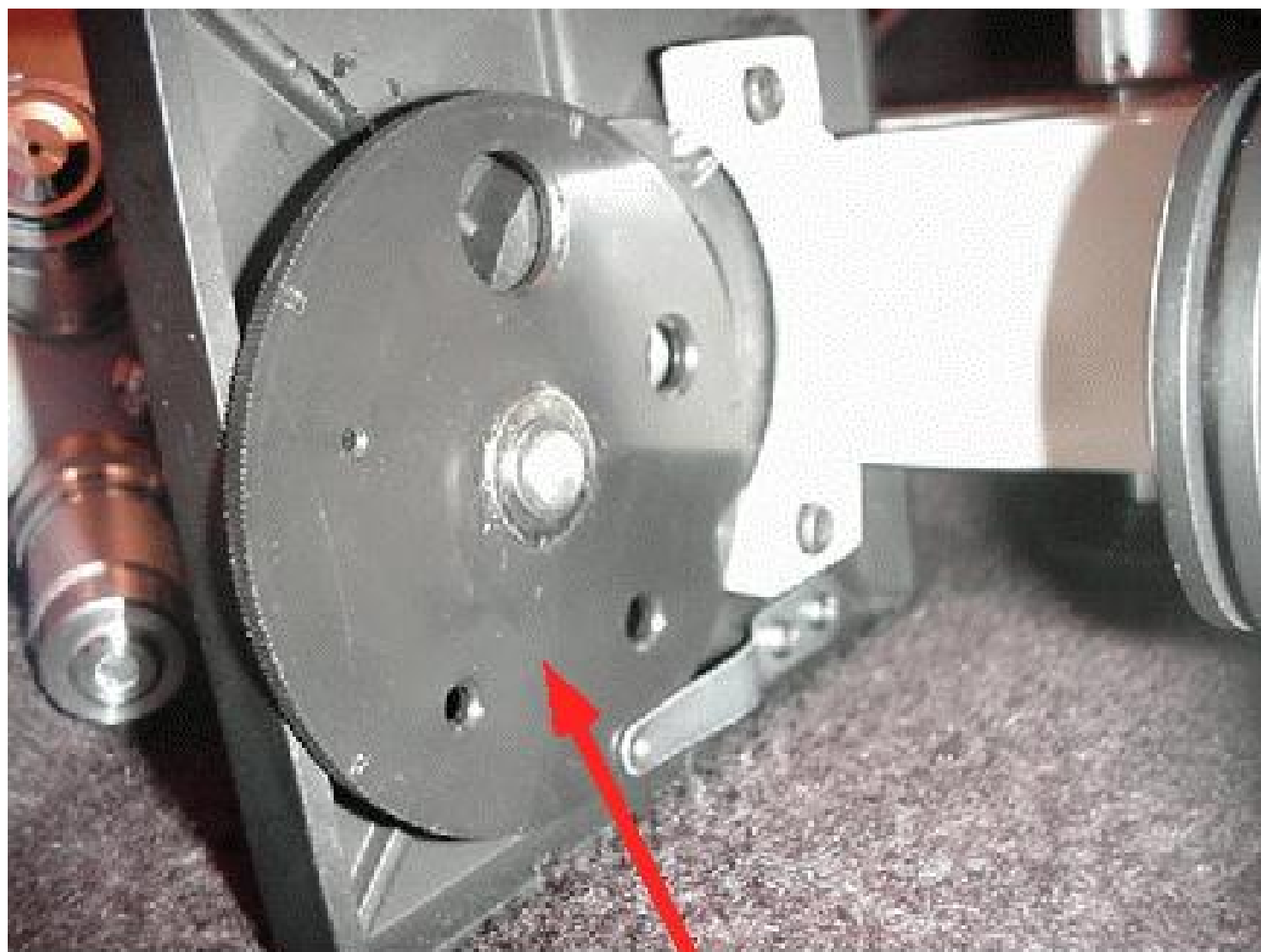
Arm



Stage Stop

Stage Clip

Aperture



Diaphragm

Total Magnification:



X



= 40 X

4X Scanning Objective 10X Eyepiece

